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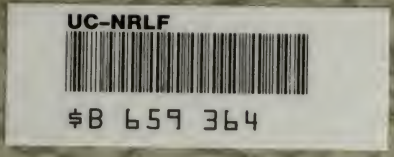

Milking Shorthorn Club of America.
Milking shorthorn breeders' guide.
1918

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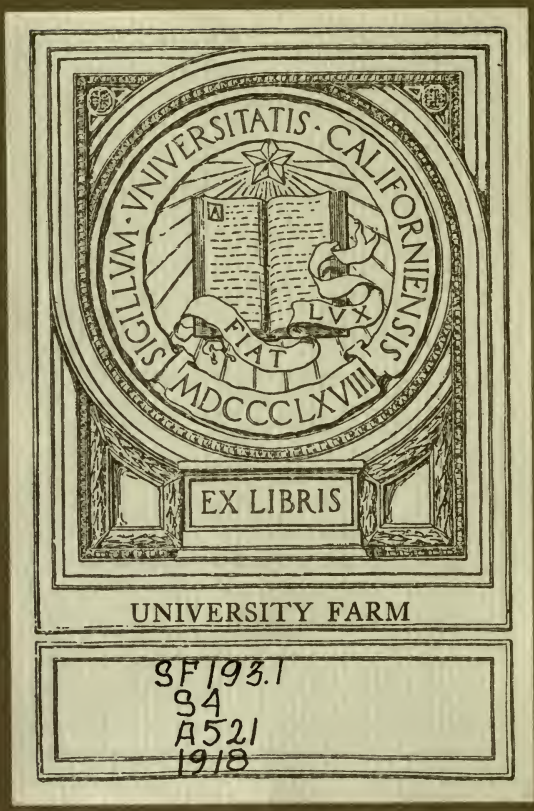
Milking Shorthorns



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Milking Shorthorn Breeders' Guide

CONTAINING DESCRIPTIONS OF THE

Milking Shorthorn Herds owned by members of
The Milking Shorthorn Club of America

Articles of General Breed Interest by Live Stock
Authorities of the Country

AND A REPRINT OF

Records of Merit Lists from Volumes 1-2-3 of the
Milking Shorthorn Year Book, being all of
the Records accepted up to January 1, 1918

Published by THE MILKING SHORTHORN CLUB OF AMERICA
W. Arthur Simpson, Secretary, - - Lyndonville, Vermont

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"The lapse of years only serves to strengthen the position of the Shorthorn. A century of close contact with the most exacting requirements of the farm and feed-lot has only deepened the hold of the 'red, white and roan' upon the affections of the agricultural world. The source of this perennial prosperity must be apparent even to the most casual observer. The strength of the Shorthorn lies in its unrivaled range of adaptability; in the facility with which it responds to the varied demands of those who pursue a system of diversified farming—the rearing of live stock as an essential feature in a well ordered scheme of mixed husbandry. The Shorthorn is distinctly and emphatically a dual-purpose breed."—A. H. Sanders in Shorthorn Cattle.

Short History of the Breed

By W. Arthur Simpson

Seeing that this publication will most probably reach many people who heretofore had little opportunity of knowing much regarding the origin of the breed, it is considered that it may not be out of place to refer shortly to a few interesting facts regarding the history of Shorthorn cattle.

During the earlier decades of the eighteenth century a class of cattle of considerable reputation existed on both banks of the river Tees, as it divides the counties of Durham and York in North England. Although this was long before Herd Book record days, it was spoken of as the Teeswater breed, later becoming known as the Shorthorn, as distinguished from the Longhorn breed, and becoming known in the earlier days of their introduction into America as Durhams from one of the counties in which they originated. They were known to have been large, strong boned, rather flat sided cattle that arrived at maturity rather slowly, but attained to great weight. It is generally understood that the cows of the breed were good milkers. This breed of cattle was one of the first to receive systematic and widespread attention along pure breeding lines and can lay claim to being one of the oldest breeds of "improved" livestock. As early as 1750 the breed had begun to attract the attention of all the progressive farmers, feeders and grazers of the country side both far and near. Each of those who took pride in cattle vied with the other in the exhibition of good specimens of the Teeswater type; and we can imagine with what absorbing interest these breed builders compared the relative merits of their stock and with what satisfaction they noted the progress being made.

Charles and Robert Colling, whose influence was felt soon after 1780, were the first noted improvers of the breed although it would be incorrect to describe them as its founders. They adopted a system of persistent in-and-in breeding with superior animals, specially selected and mated and thus fixed the charac-

teristics which they sought. Their names were brought to public notice by exhibiting striking specimens from their herds throughout England and by this means and by the introduction of hiring out bulls the Shorthorn ceased to be a local bred and became widely known and distributed throughout the United Kingdom. Charles Colling sold his herd in 1810, one of his bulls, Comet, brought the then extraordinary price of $5,000.00.

Following the Colling Brothers many good herds were established in North England mainly from stock of the Colling blood, among the most noted were owned by Thomas Bates and John and Thomas Booth. From these two herds, bulls were bred to head practically all of the other herds of the period and the influence of their breeding operations exist today.

The Booths, while not overlooking milk, bred largely for great flesh carrying capacity and pursued a system of exhibiting well fleshed cattle from their herds at the leading fairs of the time.

Thomas Bates aimed at and succeeded in breeding what may be termed as a refined type of cattle, and we are told that the females in his herd had a "refined sweetness of character peculiarly their own," they were as a rule deep milkers. Bates contended strongly for purity of blood and secured for his herd only cattle of the oldest and best known lines of breeding, he was morever an all-around improver, developing his herd along the lines of both beef and milk. He checked the amount of food consumed by each beast with the amount of milk produced or the rate of growth or increase in weight, and compared the amount of butter produced from a given quality of milk, and finally submitted the carcass of his animals to what he called the palate test. He claimed that he effected in his 35 years of breeding such an improvement over his original cattle that with a third less consumption of food they gained a third more weight and that while their milking qualities were unimpaired the milk yielded a third more butter. Cattle as bred by Mr. Bates exerted a commanding influence on the Shorthorn breed for nearly three quarters of a century, at one time commanded the greatest prices ever realized for pedigreed livestock and to the present day,

ANIMAL HUSBANDRY

Milking Shorthorns in particular, carry a strong infusion of the blood of cattle owned by Mr. Bates at Kirklevington.

Shorthorns were first brought to America about one hundred years ago and the greater part of the first importations came from herds bred similarly to the Bates and were therefore genuine dual-purpose cattle, good milkers as well as great beef cattle. No other breed is so immeasurably connected with the early history of improved agriculture in this country. The good dairy cow of the eastern states, the prime grass fed bullocks from Kentucky and Ohio were early demonstration of the ability of the Shorthorn to produce both beef and milk abundantly and they were the pioneers in the improvement of range cattle and the elimination of the scrub.

For about fifteen years centering about 1870 the Shorthorn breed suffered both in this country and in England from a speculative boom in pedigrees and many good cattle were injured through the enhanced valuation put on particular lines of breeding rather than on individual merit, however the breed in general was not seriously affected by these practices and the disadvantages that grew out of the speculative boom were more than offset later by the attention given to evolving the modern early maturing beef type to meet the competition of the other beef breeds. Foremost in perfecting this splendid beef type was Amos Cruickshank, a Scottish farmer, and this sort of stock has proven the most popular beef type in the world, noted where ever good cattle are bred and raised. For the modern beef Shorthorn can be claimed outstanding quality, early maturity, greater weight for age and better milkers than are usually found in the other strictly beef breeds.

While the Shorthorn breed has always been noted for great milking cows the history of Milking Shorthorns as such begins in this country and in England about the year 1890. In the early days there was scarcely a herd of note that did not posess cows of exceptional capacity as dairy producers. There are numerous instances of good milk and butter yields being recorded but the pedigree craze of the 70s, the evolving of the strictly beef type and perhaps most important of all the opening of the range and

the practice of rearing the calves on their dams, temporarily obscured the merits of the breed along milking lines. Generally speaking the rise of interest in Milking Shorthorns in England begins with the establishment of the Cranford herd by the late George Taylor in the early 80s and in this country with the foundation of the Glenside herd about 1890.

While Milking Shorthorns have been a paying factor on American farms for nearly a century, one of the first official demonstrations of their worth was made at the World's Fair test at Chicago in 1893, where under unfavorable circumstances they made a most commendable showing in production. Two of the leading cows in this test were Kitty Clay 3d and Kitty Clay 4th the latter standing third in net profit over all breeds. These full sisters became the ancestr esses of the Clay family the leading tribe among American Milking Shorthorns and their descendants have demonstrated in no uncertain manner the milking ability of the breed.

From the first, breeders have placed their faith, not in short period tests, but in the yearly proof of producing merit. Testing was first started in a small way nearly twenty years ago and provided the foundation evidence of the desirability of blood lines with dual-purpose breeding for the production of this type of cattle. Dual-purpose by demonstration was early adopted by breeders as the best method of succeeding with the breed and for the past five years all of the best herds have had careful, accurate records of production. Official testing is being rapidly adopted. Volume 1 Milking Shorthorn Year Book was issued in 1916 through the American Shorthorn Breeders' Association and volume 2 in 1917. They contain the records of 427 cows of all ages with an average yearly production of 8,823.9 pounds milk each. Those with fat records in addition to the milk yields average 330.2 each. It should be remembered that Milking Shorthorn breeders have been consistent in keeping the dual-purpose idea in mind, breeding the type of cow that would not only pay at the pail, but also raise a profitable market steer and have not gone in for extreme yields. Their aim has been to secure and breed profitable production under average farm conditions, not only for one year, but for a term of years. Dorothy, an English Milking Short-

horn, holds one of the highest, if not the highest record, of any cow of any breed over a long term of years, having produced in eleven years an average of 10,536 pounds milk yearly. Darlington Cranford 5th of the same tribe averaged 10,174 pounds for ten years.

Among the high record Milking Shorthorn cows in this country Ruby has 18,952 pounds milk, 715 pounds fat; Rose of Glenside, 18,075 pounds milk, 635 pounds fat; Doris Clay, 17,241 pounds milk, 653 pounds fat; Mamie's Minnie, 16,201 pounds milk in one year, 15,160 pounds yearly for three years. A reprint of all the records accepted for Volumes 1, 2 and 3 Milking Shorthorns Year Book appears in this volume.

Two steers from Shorthorn cows with milk records over 10,000 pounds each in one year and sired by bulls from 10,000 pound dams were shown at the Wisconsin State Fair in 1917, winning 2d and 3d in the open class.

Along with the keeping of dairy records showing at the fairs has also been an important factor in popularizing these cattle. The International Live Stock Show first made provision in the classification by offering prizes for Shorthorn cows in milk in 1906. From this small beginning the exhibit has each year steadily grown in numbers and strength until the 1917 show staged a fine exhibit with a complete and full classification. The Vermont State Fair was the first to provide full classes when they opened the show to Milking Shorthorns in 1907. Here too the exhibits grew to fine quality and strength and provided an opening for breeders of these cattle that subsequently gained for them recognition at nearly all the leading exhibitions of this country.

For many years Shorthorns with dual merit have occupied a commanding position in Britain's agriculture and not a little recognition of merit for the breed in the U. S. A. has been gained through the importation of good specimens from the home of the breed, and these cattle have made good in demonstrated production, show ring excellence and breeding ability.

The Milking Shorthorn interests found expression in 1914 through the foundation of the Milking Shorthorn Club of America.

Through this club these interests seem destined to find fullest advancement. This club exists for promotion work only and does not register cattle. At all times co-operation has been had with the American Shorthorn Breeders' Association, the strongest breed registering association in the world and valuable help and support has been derived.

Public appreciation has been shown by public sales of these cattle, the Painesville, Ohio, consignment sale of 1916 averaging $562 on 54 head, the Peer sale of 1916 averaging $751 on 72 head, the Peer sale of 1917 averaging $781 on 55 head and the Glenside sale on May 31, 1917, averaging $1,008 on 39 animals. Private sales have been in keeping with public appraisement and generally speaking the demand for Milking Shorthorns may be said to exceed the supply.

Milking Shorthorns for the Eastern Farmer

By Frederick C. Minckler

The live stock farmer is interested in any practical proposition that will coin for him a new dollar. The small dairy farmer particularly, has had his discouragements during the past few years owing to the fact that he has habitually relied upon the corn belt farmer for nearly all of his consentrates and for an increasing percentage of the roughage used in feeding his stock.

The relatively low price received for milk at the farm has added to his discouragements and with the labor situation as acute as it has been during the past year, many of our progressive dairymen have determined to get out from under this heavy load. To this end they are wondering if the future of live stock farming in the East is not going to be patterned after the system that prevails in England where the farmers, instead of maintaining representatives of the so-called Specialty dairy breeds, are

patrons of the dual purpose type which today means the Milking Shorthorn.

It is argued, and rightly so, that representatives of the Milking Shorthorn will yield quite as much milk as the average dairy cow found on the average dairy farm; that her calf can be profitably grown and developed into a beef steer and that when the cow's usefulness as a producer of milk is ended, she can be turned into the fattening yard where in a very short time she develops a condition of fleshing that is very attractive to the butcher who is willing to pay quite as much per pound for such a cow as he pays for the general run of beef steers.

Rather than join the army of canners that is recruited from most dairy farms she is able to enlist in the regular beef making forces. True enough she will not produce as much prime meat as the strictly beef animal nor as much milk as the strictly dairy bred type, but she will yield quite as much milk and fat as do the representatives of the prevailing breeds and in addition, produce a calf that is a real asset rather than a mere nuisance.

On many Eastern farms there are vast areas of rough land well suited for pasture purposes that are not being utilized. Experience has convinced the dairy farmer that he cannot feed milk worth ten cents per quart to a dairy calf, the value of which is based upon the price the youngster will bring in the local market for veal or beef. On the other hand, it is evident that the British farmer in his stock breeding operations, carried on where land values are a great deal higher, does not stop to argue this question, largely because he knows that there is a genuine demand for the kind of beef that these Shorthorn calves make when properly developed and he goes on about his business regardless of feeding costs and labor shortage. Unless the Eastern farmer adopts the English system of intensive farming and produces on his own farm the bulk of feed stuffs required to grow and finish his animals; unless he abandons certain practices that have led him to believe he is a large operator because he does a relatively large amount of business, irrespective of net returns, or lest he breaks away from patronizing the local feed dealer that claims and receives a generous percentage of his 50c dollar, it is

easy to believe that his live stock farming operations will scarcely be profitable or encouraging.

The Milking Shorthorn is clearly entitled to play a very important part in rejuvenating successful farming practices in the New England States. She will produce meat and milk in abundance. She will yield calves that will establish a competitive market for either veal or baby beef in as much as this product will satisfy the demands of the local butcher for freshly killed beef possessing flavor and texture, while the cow herself will not require the labor expenditure that must follow any operation where dairying is exclusively followed.

The new era is going to find the Eastern stockman, especially the tenant farmer who operates a small farm, engaged in the growing of a few sheep, a few pigs and a few cattle, the production of which will have a tendency to equalize his labor load and make it possible for him to introduce a system of crop rotation that will provide practically all of the feed required to supply their needs, enable him to make the most of his meadows and pastures and thus make him more independent of the Western crop grower and the Eastern distributor of grains and hay.

Milking Shorthorns are bound to predominate in any organized effort of this kind and the young breeder who early chooses this system of agricultural operation will clearly outrank, in the years to come, his neighbor who persists in fiddling along with mongrel cows possessed only with the dairy inclinations, and butter fat illusions.

This breed of cattle was developed in England by Bates, Booth and Cruickshank to serve as a rent paying agency and what they did and are continuing to perform for the British tenant farmer, they are bound to accomplish for the American farmer who is face to face with problems very similar to those encountered by the old country farmer.

The Milking Shorthorn in the Corn Belt

By J. L. Tormey

A glance at the history of the Great American Corn Belt reveals a page in the Agricultural Evolution of our country that is almost romantic. Here in the central part of our great country, almost midway between the two great oceans of the world, is a scope of country unequalled for natural resources in the world. All the natural conditions for food production to feed an Empire exist. Blessed by nature with rich soil, a topography that makes working the land an easy problem, watered by the tributaries of the Great Father of Waters, that are fed by the snows of the two great back bones of the nation, and traversed by the greatest trunk-lines of railways and waterways to be found anywhere in the world, is it any wonder that the American Corn Belt is the envy of the world?

In the history of nations there is perhaps no parallel to the marvellous growth that has taken place here in less than a century of time. It is easily within the memory of many, when the Red Man travelled unmolested over much of the fertile prairie land of the Mississippi and the Missouri. The tepee has given way to the beautiful home. Large, comfortable barns and silos without number have supplanted the great open, and providence against the elements has supplanted the reckless methods of a former generation.

Many changes have taken place in this great territory in the past few decades. Early inhabitants of Central Illinois and Iowa found cattle grazing lucrative. This, however, was only temporary. Following the Civil War came a period of expansion. Our friends in the North Eastern part of the country remember this period as one marked by great activity in manufacturing and commercial lines. Increase in population called for greater food production. The native American has been noted for his nomadic inclinations. In the words of Horace Greeley, they "went West and grew up with the country."

Extension of lines of Railway west of the Missouri opened up new fields, and the Government's policy of Free Land opened up new and cheap fields for production.

The cattle grower of the corn belt soon found he could not compete with the grower of the plains, and became a "feeder." He bought his feeders from the range, turned his pastures into corn fields, picked his corn and fed cattle. This was profitable until all the free land of the west was taken up and he found the prices for feeders growing correspondingly higher. Corn Belt land increased in price by leaps and bounds. Tenant farmers became numerous. These latter did not have sufficient capital to invest in breeding stock. The inevitable happened. The tenant wished cash. Prices for corn were good. Large areas of the Corn Belt became grain growing sections, and in many sections, once populated by good cattle one would have difficulty finding more than enough cattle to supply milk for the family needs.

In the meantime, other changes were going on. The Corn Belt was rapidly filling with people. Great manufacturing centers sprang up, and the demand for more animal products near these hives of industry became imperative. There was also the call of the soil, demanding nourishment. In all due deference to the great natural fertility of the soil of the section, no country could long survive the deadly system of continuous cropping with no return to the soil. Dairy sections unlike those found in other sections of the world were built up around Chicago and Milwaukee, and in outlying sections of the cropping area there was a demand for cattle. The production of Baby Beef and older beef began to attract attention. Far sighted business men whose livelihood depended upon the fruits of the soil placed calls for cattle.

Many of the farms were too large, and help too scarce to warrant intensive dairying. A call for the cow that would return profit both at the pail and in the shape of a good marketable steer arose. Where could such a cow be found? It was not so difficult for the farmer of the Corn Belt to find, or at least remember. Many of the old timers remembered the cows of the days of Illinois and Iowa, brought into those sections from the

fertile districts around Lexington, Kentucky. In many cases, the sadness of the affair was that many of the big "Double Decked" cows had disappeared entirely, and it became a search for the Milking Shorthorn. It is not hard for us to convince the Corn Belt farmer of the value of such cattle as represented by the Milking Shorthorn of good type. The gravest problem is to find the cattle he wants. Show him the Milking Shorthorn of the correct type and he is in the market for both bulls and females. But the Corn Belt man is a good stockman when he sets out to be one. He knows what the market demands. Big cows without milking ancestry, he doesn't want. Neither does he desire milk records without good cattle.

From the raising of cattle for beef alone to those that will produce both beef and milk is an easy change for the Corn Belt man; and he wants Shorthorns, because, experience has taught him that Shorthorns stand the test of time. He needs only to turn to the experience of Great Britain, where over 90% of the milk produced is from Milking Shorthorns. In parts of Iowa, Illinois, Wisconsin, Minnesota, Missouri, and other states of the Middle West, in the Corn Belt and bordering on it, there have already sprung up communities of breeders of Milking Shorthorns, where good cattle are being produced. In competition with special dairy breeds of cattle, they are holding their own in Cow Testing Associations, and are making money for their owners in supplying milk to creameries, cheese factories, condensaries, and city distributors of whole milk. The calves help supply Chicago with some of the best grass fat steers produced in America. The question with these men is: "Where can we get more cattle like these?"

Milking Shorthorns

By the late F. J. Curtin

The farmers' cow with the most wide-spread distribution and which has made good in the greatest number of instances, is the Milking Shorthorn. This pre-eminent position has been obtained solely on its own merits, for it has not had the advantages of persistent publicity such as has been given the dairy breeds.

Our increasing population, with its greater demand for milk and meat and grain, together with the passing of the large grazing areas and the decrease in the amount of grain feeds available for cattle feeding, call attention to a situation of increasing seriousness in food production of all kinds. This, combined with the labor situation, demands reorganization of existing systems of farming in many sections.

Farm management surveys have shown conclusively that the most successful farms are those having the largest numbers of animal units. Farm roughages must be converted into something salable for cash and which takes the least fertility, at the greatest profit, from the land. Common sense dictates the necessity of a monthly income. The labor situation is acute. How, then, can a fully stocked farm have a monthly income and dispense in a large measure with labor? The answer is: The Milking Shorthorn, an animal combining milk and beef-making ability in a most remarkable degree.

There is a limit to the number of dairy cows one man can successfully handle, and usually this number is not sufficient to consume the roughages produced on the farm, and they must be consumed to advantage if the best returns from the farms are to be realized.

Farms keeping Milking Shorthorns have a great advantage, because they have an animal that will produce profitably at the pail and furnish a desirable carcass of beef. A farm can keep as many milking Shorthorns as can be conveniently handled, or as

may seem desirable to milk for the monthly cream check. The skim milk can be fed to the calves, which later, as feeders, with a minimum of attention will be profitably converting the farm roughages into meat and manure, increasing both the farm's income and the fertility of the land. The value of the Shorthorn as a profitable consumer of roughages is well known, which is a great point in their favor, now that grain feeds are not so readily available. The Shorthorn, by reason of its natural digestive capacity, obtains the greatest value from its feed and produces well with a minimum of grain.

The greatest profits from dairying are only realized from a breed which is naturally fecund, for successful dairying depends upon the normal annual freshening of the cow. The strength and ruggedness of the Shorthorn enable them to breed readily and regularly and at the same time give a profitable flow of milk.

As is seen by a study of records, Milking Shorthorns compare very favorably with any dairy breed as milk producers. In fact, Milking Shorthorns made more advanced registry records in the first eight years of their official testing than did the Holstein and the Ayrshire in the first 16 years of their testing. The Shorthorn records, too, have been made on farmers' farms, and not on farms devoted to the making of forced records. A Vermont Cow-Testing Association member keeping Milking Shorthorns found in checking up his records recently that four of his cows had made a net profit over all feed costs of $282. This return was for the butterfat only, which had sold for an average of slightly under 48c per pound. The skim milk was retained and fed to the calves on the farm, many of which have sold for good prices.

If milk production is the standard by which cows should be judged, the Shorthorn leads them all. In England, on war-time rations, there have been made records as follows: In 1915-16 over two hundred cows entered the Register of Merit of the British Milking Shorthorn Society with records better than 8,000 lbs.; thirty-two made over 10,000 lbs. and there was a top of nearly 14,000 lbs. In 1916-17 five cows made over 13,000 lbs., two over 12,000 lbs., ten over 11,000 lbs., thirty-three over 8,000 lbs., sixty-

six over 6,000 lbs. These records are computed a little differently from over here, as the cow's production is taken from September 30th of one year to October 1st of the next year, so that there are many incomplete records in addition to those mentioned.

There are more Records of Merit Shorthorn cows in Ireland than there are cows of any other blood. The Irish Shorthorn Breeders' Association Register of Dairy Cattle included up to 1917, 2,673 Shorthorn cows of all ages, of which 487 made between 5,000 and 6,000 lbs. of milk; 1,601 made between 6,000 and 8,000 lbs. of milk; 488 made between 8,000 and 10,000 lbs. of milk, and 106 made over 10,000 lbs. of milk. Those making below 6,000 were all prior to 1912, in which year the standard for Registration was raised from 5,000 to 6,000 lbs. for each lactation period. It should be borne in mind that Ireland is a small farm country and that these records have been made on very many farms and under widely different conditions, indicating the natural ability of the Milking Shorthorn to produce.

In Australia a Milking Shorthorn cow, Melba 7th, of Darbalara, is the champion producing cow of the Island Empire.

Besides having this remarkable producing and reproducing ability, the Milking Shorthorn is an animal that will provide a prime beef carcass, either in itself or in its progeny. There have been several instances lately where cast cows have sold for 12c a lb., live weight, returning over $200 a head as beef. In all breeds there are aging, unprofitable cows, cows that fail to breed, heifers that go wrong and must be slaughtered. With feed prices at their present levels such animals have cost $100 to $150. How many animals of the dairy breeds can be sold to the butcher at a price that realizes a profit over the cost of their keep?

Milking Shorthorn steers in recent open competitions have done remarkably well. Last year, at the Wisconsin State Fair, in an open class, two steers from Record of Merit Shorthorn cows and sired by Milking Shorthorn bulls stood second and third. At the International of 1917 the Shorthorn steer standing next to the grand champion (also a Shorthorn) had four Record of Merit sisters with two-year-old records of from 8,727 lbs. of

milk; 355 lbs. butterfat, to 5,120 lbs. milk; 225 lbs. butterfat.

The Argentine has long realized the value of bulls from heavy Milking Shorthorns and has paid as high as $15,000 for them, knowing as they do the necessity of an adequate milk supply for the calf if profitable beef-making is to ensue.

The present trend of meat, grain and feed prices, the railroad situation, and the insistent demand for more beef, emphasizes clearly the place of the Milking Shorthorn, for the greatest profits are being realized by those who raise their own feeders, by virtue of their lower cost. The railroads are unable to cope adequately with their enormous traffic demands, and as a result the transportation of feeders is difficult and expensive, due to the large shrinkage. In the east, where much mill feed is purchased, the farms depending on dairy cattle accustomed to much grain,have been hard hit. Their cows have not produced so well on roughages. In either case were Milking Shorthorns on the farms greater profits would ensue, as they do so uniformly well on home-grown products.

The production of milk and meat more universally in all sections by the use of Milking Shorthorns would not only help the railroad situation by the production of these foods in the section in which they are to be used, but would also help the whole country economically, as apparently the time is rapidly approaching, if, indeed, it has not arrived, when a large share of the country's meat supply will have to be grown on the average farms of the country.

Success with a breed also demands that there be a broad demand for young registered stock at remunerative prices. There is this demand for Milking Shorthorns, for it is being realized more and more by the average farmer that the Shorthorn is the breed for him.

A point that is often overlooked in connection with the choosing of a breed is the character of the men and the breed associations back of it. There is no stronger or more progressive breed association than that back of the Shorthorn, and the men breeding the red, white and roan are the most progressive,

loyal and helpful to newcomers in their ranks that can be found anywhere.

Selecting and Feeding Milking Shorthorns

By R. M. Dodington

The closing up of the western ranges and the increased interest in the dairy industry in this country in recent years has revived the attention of the public to the old "Durham" cow as a dual purpose animal second to no other breed, and for generations the backbone of the dairy operations in England. The development of the Milking Shorthorn has been greatly encouraged since the war when people began to realize that they could produce milk in paying quantities and also return a handsome sum from beef.

We all wish to keep the true Shorthorn character in our herds; and altho the object is to breed cows that will give a good yield of milk, we must also have them capable of grazing quickly into good bodies of beef when their milking days are over, and also of breeding steers that will repay well for weaning and fattening. For this dual purpose no other breed can compare to the Shorthorn.

I shall now attempt to describe the type of cow we are endeavoring to breed. She should be straight in her lines both on top and underneath, be wide and deep, especially in the back and hind quarters, having ribs well sprung altho it is no fault if she is less thick on the top of the shoulder blades than those animals bred purely for beef, her shoulders should lie well into the back and there must be no coarseness at the points. The flesh should be evenly laid on with out patchiness about the rumps or hips, and the tail well set in. The head is an important feature—it should be effeminate, the eye prominent and and placid, the

muzzel broad and clear in color, the horns not coarse and with a delicate curve. The skin should be soft and pliable, the udder capacious and carried well up, beginning high between the thighs, and running well under the belly, when the cow is milked out or when she is dry it should have a silky touch with an abundance of loose and thin skin. The teats should be of fair length, well spread out and evenly placed, the escutcheon well defined and the milk veins prominent and with a large cavity. Such a cow as I have described with the possession of a gay and stylish carriage, whether she be red, white or roan, is to me, of all animals, the most fascinating.

In England the beginner has the advantage of being able to grade up and so can at the end of ten or twelve years acquire a registered herd, that is with four crosses of a registered sire. (Note by Editor. It should be remembered that these crosses are made on what is virtually a pure Shorthorn foundation that has passed inspection as to pure type.) The progeny would be accepted in Coate's Herd Book, and it is this class of cattle (Short pedigreed cattle) that is commanding high prices in Britain today, and it a great advantage to the Milking Shorthorn breeder of this country that the American Shorthorn Association will now accept for registry these cows that are registered in Coate's Herd Book. Previous to this year an animal, to be accepted for registry must trace back to Vol. 50, thus keeping importers from bringing to this country the real tops of the English breeders.

When transportation becomes easier and less expensive, importations from England will probably revive, but under the present conditions cows of this type are selling for more than the average beginner can afford and so I will endeavor to give him some advice gained from our own experience about starting a Dairy Shorthorn herd with only limited means at his disposal.

The purchaser should begin by getting cows of robust constitution and good confirmation, putting the pedigree as a secondary consideration. He should be careful that she has a good udder and promises a good yield of milk, as a good milker will pay her way to start with. I have seen many such good cows sold within the means of the ordinary farmer that if mated to the

right kind of bulls would produce as good a dairy shorthorn as possible. This brings us to the question of the right kind of bull.

In selecting a bull my advise to every one is, go the limit you can afford. We have seen many a farmer who could better put his money in a better bull, than buy a "Ford", he would then be able the sooner to sport a "Pierce-Arrow." Before purchasing a bull see his dam if possible, do not be satisfied with a milk record only, but also be assured that the bull came from a good cow with a shapely udder or at least get evidence to satisfy oneself on these points; the sire of the bull must likewise come from a good milking family and it will be much in the bull's favor if heifers by his sire can be seen showing good udders and milking well. It is an old and true saying that the bull is half the herd, for a bull with ordinary luck should leave 30 or 40 calves a year for 4 or 5 years, 100 to 200 calves and as a calf by a good bull is worth at least $100 more than one by a moderate bull, surely any price within reason is no object. A breeder will never get any further forward, whatever class of stock he is breeding, if males not better than his own females are not secured. This is a simple truth but one in so many cases ignored for the sake of a few dollars.

It may be of interest to beginners to know how we handle our herd as to feeding and general management. We look on Dairy Shorthorns as a hardy breed of cattle that require no coddling. Calves are taken from their dams as soon as they calve and are fed their mother's milk for 4 or 5 days so that they get the full benefit of the colostrum in the new milk. After that period and providing they are in a thrifty condition 5 to 10 lbs. milk are fed twice a day for at least six weeks or two months, then the heifer calves are put on one half whole milk and one half separated milk for another such period, when the quantity is increased and separated milk alone is fed. We place a mixture of crushed oats and bran and soft clover hay before them from the start in individual pans and changed daily and thus the calf gets to eat a little as soon as possible.

We believe heifer calves eventually become better milkers as

cows, if not forced in their younger days, but kept in a thrifty condition. Bull calves we feed new milk as long as we can spare it, as it is an important factor that the bull carry good flesh and at all times be in good saleable condition as the demand for our bulls is from two months old and up and purchasers expect a calf in good condition to start with. We often note with regret the condition of the calves is not maintained afterward, many a good calf leaving our herd and paid a good price for is neglected. The purchaser thinking he has done all that is required by giving a good price, expects his calf to develop into a show bull without looking after him.

Our heifer calves we keep on separated milk as long as we have it to spare, not turning them out at all until over six or eight months old, when we keep feeding them a little grain in paddocks around the farm until two years old. We find if turned away as yearlings without grain during the summer that they depreciate so that it takes them a long time to pick up to face the winter. This of course depends on the condition of the pasture. When the pasture is luxurious and sweet they can probably go without grain for several months, but with us on our sandy soil, the grass does not last well over three weeks.

We do not care to breed them before they are two years old. We either turn a bull out to pasture with them, or if in winter, in a yard covered on three sides with an open shed. In the yard we do not pamper them at all, giving them an ample supply of roughage with very little grain. We keep them on this diet until sure they are well forward with calf when we take them in daily and grain them, thus getting them quiet and easy to handle, ready for milking when they calve. We grow as many mangles as possible and we find that this is not a bit more expensive crop to grow than corn. Beet seed may be put in with a corn planter and after once being thinned as required they are cultivated exactly the same as corn and there is no question as to their feeding value over silage. They should be planted by May 10th in Ohio and harvested before the first severe frost.

Water is an important element to help the cattle and in this respect we have fresh water for our calves from the first week,

allowing them to drink when ever they please. With respect to the time of breeding heifers much depends upon the condition, but it is certain that heifers will do better to calve in the early spring and go out on the pasture during the lactation period, as two year and three year old heifers are still teething and if entirely on dry feed as they would be, calving in the autumn, the feed will not be so well digested, due to shedding their two year old teeth. Some breeders are apt to condemn a heifer as a bad milker with her first calf due to this very reason and on her coming fresh with her second calf have made outstanding records.

We advise not pushing a two year old heifer, milking her twice a day to develop her milking qualities gradually, but of course milking every eight hours will give you 20 to 25% more milk, especially if the cow has a loose box and self watering bowl.

Cows on official test are milked three times a day until such a time that they are not giving enough to make this worth while, usually five to seven months, which brings us to the fact that the Shorthorn is said to be not a long duration milker. This is not borne out by facts. I find the average is the same in all breeds. I find short period milkers in the straight dairy breeds. I would rather have a Shorthorn cow give a reasonable quantity of milk for nine months than a cow giving the same milk from 12 to 15 months, as the Shorthorn cow when dry is much cheaper to keep. She can be turned out around a straw stack and get fat where a straight dairy breed would starve.

I would point out to those engaging in the business and wishing to dispose of their surplus stock, never to offer anything if possible out of condition, for one thing you do not realize its value and it does you and the breed no credit. Remember, in nine cases out of ten, $50 worth of feed will bring you two hundred dollars additional from your sale. There is one time to sell a dairy Shorthorn cow, either when she is springing or just fresh when you will realize the full value of the cow, because at this period she is in good condition while when milking she milks flesh into the bucket. I could relate many instances to bear out this point.

Some readers will think I have told them little they did not know before but I shall be satisfied if what I have said proves interesting or useful to those with less experience or those who may intend to embark on the breeding of dairy Shorthorns. To them I may say that it is wise and necessary to anticipate their share of disappointment and loss. Let them be as careful as they may in selecting, they will always find, as in other breeds, that a certain percentage of heifers which they bring into the dairy do not milk sufficiently well to justify keeping them. These should be sold off at once no matter what their breeding or looks may be unless the failure is due to any ailment the effects of which may pass away.

In all stock breeding the rough has to be taken with the smooth and a man must hold out even if things do not go well. We have had our share of all the disappointments but in spite of them I consider the breeding of Dairy Shorthorns offers a career in which a man may gain not only a vast amount of pleasure but also with ordinary good luck and management a handsome financial success.

Abbreviations—**M.** Manager. **RS.** Railroad Station. **F.** Herd Foundation. **T.** Total Number in Herd. **S.** Sires in Use

Alexander and Kellogg, Suisan City, Cal. **RS.** Farm at Grizely Island. **T.** 75. **F.** A number of females secured several years ago at Glenside, the get of Knight of Glenside, Imperial Clay, etc., top females from first Painesville sale including Bellevue Daisy, Rose Fairfield 2d and daughters of Royal Darlington. A number of select imported females bought at the first Peer sale. About 40 cows in herd, many of them in the Record of Merit Daily milk records, supervision University of California. **S.** Glenside Royal, sire Clay Laddie, (dam, Margretta Clay, record 10,043 pounds). Dam, May Rose, by Cyrus Clay, record 9,523 pounds. Imported Kelmscott Viscount 19th, Sire Cranford Wild Eyes (by Tamini and out of Wild Eyebright 9th, record 11,693 lbs.) Dam, Betty 20th, by Trickster 4th, record 6,017 pounds milk in 343 days with first calf.

Althea Farm, Dr. H. S. Neilson, Darien, Conn. **M.** H. B. Cooke. **RS.** Darien. **T.** 25. **F.** Mainly New England breeding, several daughters and granddaughters of Imported Dasher by Conjuror. About 12 cows, several in the Record of Merit. Daily milk records kept. **S.** Walby Belle's Masterpiece 594788, Sire, Gold Reef (by Baron Marigold and out of Rosie Belle 20th) Dam, Walby Belle, by Ireby Signet, record 11,654 pounds and winner of first at Penrith, England, in 1916.

Bonvue Farm, C. H. Hinman, President, U. S. Yards, Denver, Col. **RS.** Farm at Golden, Col. **T.** 50. **F.** A number of cows on test and making excellent records. Daily milk records kept and official supervision. **S.** Duke Glenrose 410244. Sire, Knight of Glenrose (by General Clay and out of Rose of Glenside, record 18,075 pounds) Dam, May Buttercup, by Duke Buttercup, record 9,954 pounds.

Oaklawn Stock Farm, W. C. Brown, Lime Springs, Iowa. **RS.** Lime Springs. **M.** Thomas Davies. **T.** 25. **F.** Foundation from representative herds of the country, it being the inten-

tion to establish one of the select herds of the breed. **S.** Imported Prince Albert 4th, an inbred Millicent bull.

W. C. Davies, Chester, Iowa. **RS.** Chester. **T.** 75. **F.** Herd has about 50 milking cows, many the get of Dairyman Jr. and Chief of Glenside, a number in the Record of Merit. **S.** Imported Lubec Mendelsshon, Sire, Sir Millicent (by Prince William and out of Red Millicent) Dam, Musical Cran 9th, by Sir Barrington 5th, record 10,067 pounds. Carleton Fashion, sire Walby Star (by Bradford Prince and out of Walby Lady, record 10,430 pounds) Dam, Lady Windsor 31st, by County Squire.

Henry Schlotfeldt, McCausland, Iowa. **RS.** McCausland. **T.** 15. **F.** Herd has seven cows in milk. **S.** White Lines, Sire, Red Gloster (by Diamond Gloster and out of Victoria Favorite) Dam, Hilda.

The Cook Farms, Cook and Cook, Independence, Iowa. **RS.** Independence. **T.** 90. **F.** Foundation from representative herds of the country, 36 cows of milking age, daily records kept under cow testing association supervision. **S.** British Knight, Sire, Knight of the Glen (by General Clay and out of Belle of Glenside, record 9,186 pounds) Dam, British Rose, by Ireby Signet, record 9,399 pounds. Prince Dairyman, Sire, Red Duke, (by Duke of Edgewood, and out of Susie), Dam, Rose of Blackwood 3d, by Dairyman Jr., record 17,564 pounds. Royal Waterloo, Sire, Roan Royal (by Royal Darlington and out of Nancy Lee 2d, record 10,039 pounds) Dam, Rose Waterloo, by Waterloo Prince, record 9,680 pounds.

H. C. Haines, Walker, Iowa. **RS.** Walker. **T.** 19. **F.** Foundation from good milking strains, several cows have made Record of Merit. Daily records kept under state supervision. **S.** Former herd sire, Maplelane Ben Oxford, son of Daisy Oxford.

Logsdon Bros., Waterville, Iowa. **RS.** Waterville. **T.** 175. **F.** Good milking families, Bates blood predominating. Weekly and monthly milk records maintained. **S.** King Craggs 453348, Sire, King Rogish Eyes (by Duke of Sideview and out of 5th Duchess of Sideview). Dam, Cicely Craggs 12th by Barrington Earl. Oxford King 2d, Sire, Earl of Barrington, Dam,

Oxford K., Glenside Butter King, Sire, Glenside Dairy King (by Royal Darlington and out of Mamie's Minnie, record 16,201 pounds). Dam, Bessie Buttercup, record 11,536 pounds, by Duke Buttercup.

George W. Bare, Walker, Iowa. **RS.** Walker. **T.** 28. **F.** Good milking strains, ten cows in herd. Daily milk records kept, supervision cow test association. **S.** M and N's Butterball 434464, Sire, Rosabella's Dairyman (by Dairyman Jr. and out of Rosabella) Dam, Buttercup 2d, record 15,608 pounds milk, 657.7 pounds butterfat.

Hanna and Brundige, Des Moines, Iowa. **RS.** Farm at Altoona, Iowa. **T.** 20. **F.** Bates milking strains, daily records kept, supervision Cow Test Association also State College. **S.** Glenside Stamp, Sire, General Clay (by Duke Buttercup and out of Mamie Clay 2d, record 13,232 pounds). Dam, Christmas Rose, record 10,120 pounds, by Ireby Signet.

R. R. Clampitt, New Providence, Iowa. **RS.** Lawn Hill. **T.** 60. **F.** Herd recently established, daily milk records kept on 30 cows with good prospects of several qualifying for the Record of Merit. **S.** White Prince (Imported) 648027. Sire, Proud Prince. Dam, Imp. Gem 5th, record 9,410 pounds.

Belle Vernon Herd, H. L. Cobb and Son, Independence, Iowa. **RS.** Independence. **T.** 45. **F.** Foundation from noted herds of the country and numbered some of the celebrated cows of the breed, Charlotte B., Daisy Oxford, Ruth 3d, Daisy Belle, etc. Twenty cows in herd, daily milk records kept, official supervision. A considerable number qualified for the Record of Merit. **S.** Imported Belle Vernon Chief, Sire, Bradford Prince (by Lord Findon and out of Bradford Princess) Dam, Walby Beauty, record 9,920 pounds by Ireby Signet. Dairy King's Bell Boy, Sire, Glenside Dairy King (by Royal Darlington and out of Mamie's Minnie, record 16,201 pounds) Dam, Pomona Belle by Imperial Clay. General Bell Boy, Sire, General Clay (by Duke Buttercup and out of Mamie Clay 2d, record 13,232 pounds) Dam, Isabel, record 8,326 pounds yearly for 10 years, by Bell Boy 2d.

O. M. Healy and Son, Muscatine, Iowa, **RS.** Muscatine. **T.** 43. **F.** Exclusively Bates breeding, many of pure strains,

Barringtons, Wild Eyes, Craggs etc. Seventeen cows in herd, part of them on test. Daily records kept on part of herd, several have qualified for the Record of Merit. **S.** King Rogish Eyes 385778 Sire Duke of Sideview (by Major Rogish Eyes 2d and out of 5th Duchess of Sideview)Dam Lily Rogish 3d. Royal Roguish Eyes 582409. Sire King Rogish Eyes. Dam Pure Rogish Eyes 3d.

E. C. Holland and Son, Milton, Iowa. **RS.** Milton. **T.** 50 **F.** Good milking types of dual-purpose character. A number of daughters of the former herd bulls Milkman, by Cyrus Clay and Glenside King by Clay Johnson. Daily milk records kept and a large number of cows have qualified for the Record of Merit. **S.** Chief Diaryman, sire Chief of Glenside (by General Clay and out of Rose of Glenside record 18,075 pounds) Dam Luella B. by Dairyman Jr. Conjuror's Heir, sire Joseph (by Waterloo Wild King and out of Joan 2d, record 5,555 pounds with first calf)Dam Imported Rosebloom, record 7,133 pounds with first calf, by Conjuror.

W. A. and H. A. Grover, Rowley, Iowa. **RS.** Rowley. **T.** 21. **F.** Ten cows in herd daily records kept under state supervision. **S.** Welfare Clay, sire Imp. HartforthWelfare (by Best of Gwynnes and out of Welfare 5th)Dam Primrose 7th by Chief of Glenside.

Glenrose Herd, D. E. Sullivan, Independence Iowa. **RS.** Independence. **T.** 35. **F.** Twenty-two milking cows in herd, daily records kept, cow test association supervision. A number have made Record of Merit. **S.** Chief of Glenrose sire Glenside Hero(by Cyrus Clay and out of Jewell, record 10,887 pounds) Dam Henrietta Clare by Cyrus Clay.

A. T. Cole, Wheaton, Ill. **RS.** Wheaton. **M.** H. R. Gregory. **T.** 60. **F.** Registered imported females selected in England for J. J. Hill by the late Prof. Thomas Shaw, including selections from the Adeane, Hobbs, and other English herds, also representatives of the Millicent family selected by Mr. Cole. A number of daughters of Brandsby's Coming Star. Daily records kept, a number of cows entered in the Record of Merit. **S.** Imported Gretna's Prince George, sire, Yeldersley Prince George

(by Furbelow Prince 2d and out of Georgia Cran 2d, record 10,302 pounds) Dam, Imp. Proud Millicent.

Bruington Bros., Cameron, Ill. **RS.** Cameron. **T.** 50. **F.** Twenty cows in herd, daily records kept. **S.** Imp. Burdale Zeal, sire, Fairyland (by Lord Pailful and out of Fairy Queen, average 8,037 pounds yearly for seven years) Dam, Imp. Leazow Zeal 2d, by Lord Pailful and out of Haywood Zeal 2d, record 9 767 pounds.

W. E. Cardiff, Galva, Ill. **RS.** Galva. **T.** 10. **F.** Herd recently established, foundation from Glenside, Hollandale and Walgrove herds. Records kept. **S.** Roan Laddie 591276, sire, Glenside Laddie (by General Clay and out of Eleanor Lee 2d record 9,897 pounds) Dam, Roan Lady by Duke of Edgewood.

C. I. Gilbert, Greene, Maine. **RS.** Greene. **T.** 15. **F.** New England breeding, milk records have been kept through cow test association. **S.** Meadowbrook King 423925. Sire, Meadowbrook Lad (by Grandview Diamond and out of Trixy of Grandview) Dam Bonnie Blanche 2d by Round Hill King. Meadowbrook King is half brother to the record three year old of the breed and sired the top heifer in the Milking Shorthorn Congress 1918.

Doughoregan Manor Farm, Chas. B. Carroll, Ellicott City, Maryland. **RS.** Ellicott City. **M.** Chas. Haight. **T.** 56. **F.** Foundation from the Glenside herd and from several outstanding imported cows. Twenty-three cows in herd, milk records made daily, a large number of cows in the Record of Merit. **S.** Manor Model, Sire, Babraham Pretty Prince (by Babraham Nobleman and out of Babraham Croquette) Dam, Roan Daisy, record 11,592 pounds, by Duke of Granville.

I. S. Cook, Morgantown, W. Va. **RS.** Morgantown. **T.** 12. **F.** Mainly of Clay breeding, daily milk records kept. **S.** Morning Star, Sire, Glenside Dairy King (by Royal Darlington and out of Mamie's Minnie, record 16,201 pounds) Dam, Missie Morn by General Clay.

Frank Glen, Elma, Wash. **RS.** Satsop. **T.** 10. **F.** Foundation recently secured from eastern breeders. **S.** Crown Jeweler, Sire, Jeweler, (by Cyrus Clay and out of Jewell, record 10,887

pounds) Dam, Lily Clare, record 8,160 pounds, by General Clay.

R. A. Hurt, Jackson, Tenn. **RS.** Jackson. **T.** 14. **F.** Stock secured from representative herds, cows will be put on test soon. **S.** Golden Major, Sire, Imported Darlington Major (out of Darlington Cranford 50th) Dam, Imported Golden Rose, record 12,395 pounds.

R. R. Wheaton, Thorndale, Ont. **RS.** Thorndale. **T.** 41. **F.** Representative milking families of Canada. Daily milk records, government official supervision. Several cows in the Record of Merit. **S.** Imported Greenleaf Record, Sire, Cressida's Hope (by Dairy Ingram and out of Cressida 18th) Dam, Greenleaf 41st. Comely Warrior's Star, Sire, Comely Warrior (dam, Comely Beauty, record 14,021 pounds) Dam, Imp. Fillpail Violet, record 7,325 pounds at three years, by Royal Enterprise.

E. H. Best, 224 Purchase St., Boston, Mass. **RS.** Farm at Mt. Vernon, N. H. Station, Amherst. **M.** H. E. Noble. **T.** 35. **F.** Imported from England. Daily records kept. **S.** Imp. Knowsley Prince 2d, Sire, Danger Signal (by Conjuror and out of Dorothy, record 15,921 pounds) Dam, Gilmorton Princess.

F. S. Peer, Cranford, N. J. Importer and breeder. Has brought out the majority of the milking Shorthorns coming from England to this country.

Bedminster Farm, J. Larocque, Owner, Far Hills, N. J. **RS.** Far Hills. **T.** 30. **F.** American strains and several imported cows. Official milk records. **S.** Imp. Histon St. Clair, Sire, Squire of Concord (by Another Duke and out of Miss Concord 6th, record 10,920 pounds) Dam, Lady Clara, record 12,298 pounds.

D. T. Barnard, Shelburne, Mass. **RS.** Shelburne Falls. **T.** 40. **F.** New England breeding. Warfield bull Chryses, Sire of 8 record daughters and Bondhurst Baron by Glenside Laddie recently in service. Daily milk records kept, nearly all cows in the Record of Merit. **S.** Imported Walgrove Peer, Sire, Bare Style (Dam's record 9,880 pounds) Dam, Morcambe Pearl, record 10,243 pounds.

Flintstone Farm, F. G. Crane, Dalton, Mass. **RS.** Dalton. **T.** 175. **F.** Twenty heifers were secured from Glenside the get

of Imperial Clay, General Clay, Knight of Glenside etc. Representatives of several eastern herds were secured notably some excellent Lady Sales and several imported females. 100 cows in herd, a large number in Record of Merit, including record two year old in fat and record three year old. S. Waterloo Clay, Sire Cyrus Clay(by Duke Buttercup and out of Margretta Clay, record 10,063 pounds)Dam Imp. Conishead Waterloo 11th, record 10,557 pounds. Imp. Knowsley Gift, Sire Danger Signal(by Conjuror and out of Dorothy, record 15,921 pounds)Dam Waterloo Gift, record 10,542 pounds, by Waterloo King. Imp. Darlington Prince, Sire Barrington Prince (by Royal Darlington and out of Barrington Cranford 17th)Dam Darlington Day Dream by Oxford Record and out of Darlington Cranford 10th.

E. B. Fox, Lowell, Mass. **RS.** Lowell. **T.** 14. **F.** Established in 1918 from representative N. E. herds. Daily records kept. **S.** Imp. Coleshill Commodore, Sire Emperor of Waterloo 38th, Dam Imp. Portbury Hilda.

Robert Saltonstall, Readville, Mass. **RS.** Canton Jct. **T.** 38. **F.** Secured from May and Otis and included daughters of Duke of Edgewood, Knight of the Glen, Glenwood Clay, etc. Daily records kept, several cows in the Record of Merit. **S.** Victor 3d, Sire, Knight of the Glen (by General Clay and out of Belle of Glenside, record 9,186 pounds) Dam, Josephine 14th, record 7,557 pounds, by Victor 2d.

G. E. Taylor, Jr., Shelburne, Mass. **RS.** Greenfield. **T.** 40. **F.** Established in 1848. Knight of Glenside, Royal Oxford and Prince Dairyman, recently in service. Daily records kept, cow test supervision. A number of cows in the Record of Merit. **S.** Imp. Hastoe Chief, Sire, Forest Chief (by Ranger and out of Lady 26th, record 9,500 pounds) Dam, Heartsease by Conjuror.

Frank Bailey, Hartford, Mich. **RS.** Hartford. **T.** 17. **F.** Representative milking strains. Daily records kept, state supervision. **S.** Oxford Emblem, Sire, Green Hill Waterloo (by Waterloo Clay and out of Glenside Flower Girl, record 8,078 pounds at two years) Dam, Jessie Oxford, average 7,000 pounds, for five years, by Baron Oxford of Niagara 25th.

James H. Ewer, Battle Creek, Mich. **RS.** Battle Creek.

T. 12. **F.** Milking families, daily records kept. **S.** Walgrove Robin (owned by G. T. Fuller.)

J. J. Foster, Niles, Mich. **RS.** Niles. **T.** 33. **F.** Herd maintained under normal farm conditions. **S.** General Claymore, Sire, Imperial Clay (by Bell Boy 2d and out of Mamie Clay) Dam, Viola, record 8,702 pounds, by General Clay. Imp. Walgrove Star.

G. T. Fuller, Battle Creek, Mich. **RS.** Battle Creek. **T.** 30. **F.** Maid of Moorland, record 12,034 pounds, and other representative milking cows. Daily records kept. **S.** Imp. Walgrove Robin, Sire, Prince Robin, Dam, Imp. Lady Betty.

G. L. Hicks, Alanson, Mich. **RS.** Alanson. **T.** 23. **F.** Nora D., record 10,005 pounds and other good cows. Daily records kept. **S.** Roan Clay 439671, Sire, Glenwood Clay (by Duke of Granville and out of Clay Duchess) Dam, Roan Queen, by Duke of Edgewood.

Ray Normington, Ionia, Mich. **RS.** Ionia. **T.** 8. **F.** From Knapp herd and herd of H. W. Avery. Daily records kept, several cows in Record of Merit. **S.** Waterloo Dunstan 688243, Sire, Green Hill Waterloo (by Waterloo Clay and out of Glenside Flower Girl, record 8,078 pounds with first calf) Dam, Pride of Lyndon 41st, by Bonny Baron 4th.

D. H. Robinson, Jamesport, Mo. **RS.** Jamesport. **T.** 5. **F.** Recently established herd, imported cows. **S.** Bell Boy Clay, Sire, Norwood Clay (by Cyrus Clay and out of Belle Clare, record 15,215 pounds) Dam, Imported Lady Red Back 5th, record 12,500 pounds, by Grove Minstrel.

The Connecticut Agricultural College, Storrs, Conn. **RS.** Eagleville. **T.** 25. **F.** Imported heifers from the Cumberland district in England. Official records kept, several cows in the Record of Merit. **S.** Imported Ireby Nipper, Sire, Revenue (by Abbottsford 3d and out of Rosemary 106th) Dam, Tulip 57th by Renown.

S. R. Houlton, Elk River, Minn. **RS.** Elk River. **T.** 50. **F.** Heavy milking families, some from Chatauqua County, N. Y. Daily records kept. A large number have qualified for the Record of Merit. **S.** Baltazer 614650, Sire, Imp. Brandsby Coming

Star (by Regal Broadhooks and out of Brandsby Princess, record 10,331 pounds) Dam, Imported Charming Maid, record 7,530 pounds, by Toogood.

Finley McMartin and Sons, Claremont, Minn. **RS.** Claremont. **T.** 150. **F.** Heavy milking families, the great bulls, Alice's Ensign and Chief of Glenside, were in service in this herd. Daily records kept, a large number of cows in the Record of Merit. **S.** Imported Hartforth Welfare, Sire, Best of Gwynnes (by First Attempt and out of Ruddington Sittyton Gwynne) Dam, Welfare 5th by Hartforth Alms. Conductor 2d, Sire, Conductor (by Conjuror) Dam, Damory Kirklevington, record 8,878 pounds.

A. E. Palmer, Euclid, Minn. **RS.** Euclid. **T.** 50. **F.** Selected from leading eastern herds, home of Welcome Lass, Helpmate 11th and Glenside Minnie May. Daily records kept, several cows in the Record of Merit. **S.** Jeweller 2d, Sire, Cyrus Clay (by Imp. Duke Buttercup and out of Margretta Clay, record 10,043 pounds) Dam, Jewell, record 10,887 pounds and three times an International winner.

M. E. Stoner, Albert Lea, Minn. **RS.** Albert Lea. **T.** 60. **F.** Heavy milking families, several from the old Blackmer and Nelson herd. Weekly records kept. Several cows in Record of Merit, including Rose of Blackwood 3d, record 17,564 pounds. **S.** Maggie's Chief, Sire, Meadow Chief (by Silver Chief and out of Meadowrue, record 10,000 pounds) Dam, Maggie 5th by Royal Duke. Imported Bedminister Swell, Sire, Derwentwater Swell (by Daisy's Pride and out of Ruby Lyle) Dam, Imp. Seraphina's Fern by Fern Prince.

Arthur Turnbull, Wall Street, New York City. **RS.** Farm at Far Hills, N. J. **T.** 20. **F.** From Otis herd and Glenside herd. **S.** Knight's Jeweller, Sire, Knight of the Glen (by General Clay and out of Belle of Glenside, record 9,186 pounds) Dam, Jewell, record 10,887 pounds, and three times a winner at the International.

Dwyer and Sons, North Bangor, N. Y. **RS.** Bangor, N. Y. **T.** 29. **F.** Heavy milking eastern families, a few imported females. Several cows have qualified for the Record of Merit. **S.** Manor Nobleman 446561. Sire, Imp. Babraham Pretty Prince

Typical Milking Shorthorn Bulls and Bull Calves

Typical Milking Shorthorn Cows

Typical Milking Shorthorn Cows

Typical Milking Shorthorn Heifers

(by Babraham Nobleman and out of Babraham Croquette) Dam, Lady Butterfly 2d by Duke Buttercup.

J. W. Morris, West Rush, N. Y. **RS.** Avon. **T.** 10. **F.** Chiefly from Glenside herd. Records kept. **S.** Village King, Sire, Roan Knight (by Knight of Glenrose and out of Marietta Clay, record 8,797 pounds) Dam, Village Lady, record 5,471 pounds with first calf, by Broadhook's Champion.

C. B. Hill, Montgomery, N. Y. **RS.** Montgomery. **T.** 35. **F.** Imported from England. **S.** Son of Glenside Laddie and Roan Starlight 7th, record 11,461 pounds.

W. J. Brew, Bergen, N. Y. **RS.** Bergen. **T.** 28. **F.** Good milking eastern strains. Daily records kept. **S.** Shelburne Dale 587322, Sire, Bridegroom (by Avondale and out of Wedding Belle) Dam, Queen L. by Dictator.

E. E. Lafler and Sons, Penn Yan, N. Y. **RS.** Penn Yan. **T.** 17. **F.** Good milking eastern families, daily records kept. **S.** Glenside Roan Clay 622766, Sire, General Clay (by Duke Buttercup and out of Mamie Clay 2d, record 13,232 pounds) Dam, Fern of Conocheaque, record 11,818 pounds when 11 years old and 10,548 pounds when 15 years old, by Guilford Baron Victor.

Cornell University, Ithaca, N. Y. **RS.** Ithaca. **T.** 10. **F.** From the Glenside herd. Daily records kept under official supervision. Several cows in the Record of Merit. **S.** Brookdale Baron, Sire, Glenside Laddie (by General Clay and out of Eleanor Lee 2d, record 9,889 pounds) Dam, Lady Sale of Edgewood, record 10,620 pounds, by Roan Duke.

H. E. Tener, Washingtonville, N. Y. **RS.** Washingtonville, near Newburgh. **T.** 50. **F.** Mainly imported and from the Glenside and other leading American herds. Daily records kept, under official supervision. A large number of cows in the Record of Merit. **S.** Fillpail Record, Sire, General Clay (by Duke Buttercup and out of Mamie Clay 2d, record 13,232 pounds) Dam, Fillpail Lassie, record 10,842 pounds, by Cyrus Clay.

E. W. Brockett, Atwater, Ohio. **RS.** Atwater. **T.** 35. **F.** This herd has produced several Record of Merit cows and International winners. **S.** Village Victor 410786, sired by a son of Villager and from the Marr Missie family.

J. and J. P. Bingle, Castalia, Ohio. **RS.** Bellevue. **T.** 6. **F.** Recently established, it being the intention to maintain a first class Milking Shorthorn herd. **S.** Waterloo Brace, Sire, Waterloo Clay (by Cyrus Clay and out of Imp. Conishead Waterloo 11th, record 10,557 pounds) Dam, Bracelet by Knight of Glenrose.

Andrew J. Ferguson, Madison, Ohio. **RS.** Madison. **T.** 10. **S.** Baron Goods 574515, Sire, Clay Goods 2d, Dam, Alpine.

H. C. Folk, Louisville, Ohio. **RS.** Louisville. **T.** 20. **F.** Mainly imported, daily records kept. Several cows in the Record of Merit. **S.** Prince Bondhurst, Sire, Imp. Babraham Pretty Prince (by Babraham Nobleman and out of Babraham Croquette) Dam, Roan Daisy, record 11,592 pounds, by Duke of Granville.

Louis Haas, Bellevue, Ohio. **RS.** Bellevue. **T.** 18. **F.** Heavy milking Ohio strains. **S.** Oxford Lee 519775, Sire, Lee Buttercup (by Glenside Laddie and out of Charlotte B., record 15,401 pounds) Dam, Maplelane Nan Oxford, record 8,136 pounds, by Tornado.

E. E. Markley, North Canton, Ohio. **RS.** Middlebranch. **T.** 30. **F.** Good milking strains. **S.** Oxford Lad, Sire, Royal Oxford (by Thorndale and out of Snowdrop Oxford Clay) Dam, Beauty 17th, record 7,057 pounds with first calf, by Knight of Glenside.

P. G. Ross, Mansfield, Ohio. **RS.** Mansfield, Ohio. Mr. P. G. Ross has always been a strong friend of the dual-purpose Shorthorn and has exhibited prize winners in the dairy classes at the International. Has also imported a considerable number of Milking Shorthorns from England and in his large herd of Scotch Shorthorns says that the good milking cows are the mothers of his best show cattle.

The Otis Herd, C. A. Otis, Willoughby, Ohio. **RS.** Willoughby. **M.** R. S. Dodington. **T.** 150. **F.** Originally established as a branch herd in the partnership with the Glenside herd and the cattle were equally divided in the dissolution of the partnership. A number of the top imported cattle from England have been acquired for the herd. Daily records kept, official supervision. Thirty cows made Record of Merit in 1917. **S.**

Imported British Prince, Sire, Bradford Prince (by Lord Findon and out of Bradford Princess) Dam, Imp. British Rose, record 9,399 pounds, by Ireby Signet. Royal Star, Sire, Imp. Royal Darlington (by Oxford Record and out of Darlington Cranford 10th, record 11,729 pounds) Dam, Red Star by Red Knight.

J. E. and C. B. Wade, Orangeville, Ohio. **RS.** Orangeville and Burghill. **T.** 75. **F.** Good milking Ohio and Chatauqua Co., N. Y., Glenside families, etc. Glenwood Clay, Duke of Edgewood and Glenside Laddie, formerly in service. A number of cows in Record of Merit. **S.** Queenston Duke, Sire, Duke of Edgewood (by Cyrus Clay and out of Snowdrop Waterloo, record 11,801 pounds) Dam, Queenston Ruby. Ireby of England, Sire, Ireby Surprise, Dam, Walby Lady 2d, record 8,242 pounds and first at the International. Fairfield King by Glenside Laddie, Dam, Rose Fairfield, record 10,015 pounds. Master of the Glenside, Sire, Knight of the Glen, Dam, Mistress of Glenside by Waterloo Clay.

Glenside Herd, L. D. May, Granville Ctr., Penn. **RS.** Cowley. **F.** Established about 1890 with the Kitty Clay family. Records have been kept for nearly 20 years. A large number of cows in the Record of Merit, including some of the highest records of the breed. Daily records kept under official supervision. A number of the better class of imported cattle have been acquired. **S.** General Clay, Sire, Duke Buttercup, Dam, Mamie Clay 2d, record 13,232 pounds. Glenside Dairy King, Sire, Imp. Royal Darlington (by Oxford Record and out of Darlington Cranford 10th, record 11,729 pounds) Dam, Mamie's Minnie, record 16,201 pounds. Glenside Joe Johnson, Sire, General Clay. Dam, Mamie's Minnie, record 16,201 pounds, by Duke of Granville.

M. and J. Schaffner, Erie, Penn. **RS.** Farm at Pennside. **T.** 50. **F.** Good milking dual-purpose strains. Records have been kept. **S.** Rosebud's Nipper, Sire, Ireby Nipper (by Revenue and out of Tilip 57th) Dam, Imp. Rosebud 2d by Bradford Prince.

John Luppert, Williamsport, Penn. **RS.** Williamsport. **T.** 25. **F.** Imported and Penn bred cattle. **S.** Imp. Kelmscott

Viscount 23d, Sire, Cranford Wild Eyes (by Tamini and out of Wild Eyebright 9th, record 11,693 pounds) Dam, Solo 68th, record 7,534 pounds, by Village Lad.

Fred A. Saxton, Granville Ctr., Penn. **RS.** Cowley. **T.** 14. **F.** Established through the use of Glenside bred bulls. Daily records kept, several cows in the Record of Merit. **S.** General's Pride, Sire, General Clay (by Duke Buttercup and out of Mamie Clay 2d, record 13,232 pounds) Dam, Isabel, record 8,000 pounds for ten years and dam of three Record of Merit daughters.

Ridge Farm, Espy, Penn. **RS.** Espy. **T.** 16. **F.** From Bradford Co., Penn stock. Several cows in the Record of Merit. **S.** Glenside Roan King, Sire, General Clay (by Duke Buttercup and out of Mamie Clay 2d, record 13,232 pounds) Dam, Bud, record 10,069 pounds, by Duke of Granville.

Hayden Peterson, Atlantic, Penn. **RS.** Atlantic. **T.** 20. **F.** Good milking eastern families. Several cows in Record of Merit. **S.** Lee Buttercup, Sire, Glenside Laddie (by General Clay and out of Eleanor Lee 2d, record 9,889 pounds) Dam, Charlotte B., record 15,401 pounds, by Duke of Granville.

H. B. Randall, 59 East High St., Union City, Penn. **RS.** Union City, **T.** 20. **F.** Eastern milking families. Daily records kept. **S.** Dutch Sequel, Sire, Samson 285850, Dam, Daisy Belle.

C. G. Wagner, Westford, Penn. **RS.** Westford. **T.** 20. **F.** Good milking tribes. Daily records kept, supervision Shenango Valley Cow Testing Association. **S.** Cyrus Claymore 3d, Sire, Cyrus Clay (by Duke Buttercup and out of Margretta Clay, record 10,043 pounds) Dam, Roseline Clay, record 9,000 pounds, by General Clay. Albion Lee, Sire, Lee Buttercup (by Glenside Laddie and out of Charlotte B., record 15,401 pounds) Dam, Kitty Clay Lassie.

Sturgeon and McKelvey, Kittanning, Penn. **RS.** Kittanning. **T.** 31. **F.** Good milking strains. Glenside bulls have been used for several years. **S.** Glenside Red Lad, Sire, Glenside Dairy King (by Royal Darlington and out of Mamie's Min-

nie, record 16,201 pounds) Dam, Gem of Glenside, record 11,165 pounds, by Duke of Granville.

E. W. Kline and Sons, Orangeville, Penn. **RS.** Orangeville. **T.** 10. **F.** Milking strains, daily records kept. **S.** White Prince 388467, Sire, Diamond B. (by Missie's Diamond and out of Imp. Lady Mary 2d) Dam, White Duchess by Spicy Prince.

Frank S. Brace, Columbia Cross Roads, Penn. **RS.** Columbia Cross Roads. **T.** 37. **F.** Established through the use of Glenside bulls. Daily records kept. Several cows in the Record of Merit, including Red Bess, record 14,000 pounds. **S.** Royal Knight 448999, Sire, Royal Darlington (by Oxford Records and out of Darlington Cranford 10th, record 11,729 pounds) Dam, Hazel Rose, record above 9,000 pounds.

Bellevue Farm, R. G. Wood, Conshohocken, Penn. **RS.** Conshohocken. **M.** J. M. Zell. **T.** 200. **F.** Glenside breeding and imported cows. Glenside bulls have been used for many years. Daily records kept under official supervision. A large number in the Record of Merit. One hundred cows in herd. **S.** Glendale Duke, Sire, Cyrus Clay (by Duke Buttercup and out of Margretta Clay, record 10,043 pounds) Dam, Glenside Pearl, daughter of Doris Clay, record 17,241 pounds. Roan Royal, Sire, Royal Darlington (by Oxford Record and out of Darlington Cranford 10th, record 11,729 pounds) Dam, Nancy Lee 2d, record 10,039 pounds, by Duke Buttercup.

R. W. Lamb and Son, Janesville, Wis. **RS.** Janesville. **T.** 50. **F.** Good milking families. Daily records kept under cow test association supervision. Several cows have qualified for the Record of Merit. **S.** Walgrove Enterprise, Sire, Imp. Royal Duke (whose dam and granddam have records of 10,000 pounds) Dam, Imp. Lady Mary, record above 8,000 pounds.

I. T. Rime, Orfordville, Wis. **RS.** Orfordville. **T.** 15. **F.** Good milking families. **S.** Waukesha Clay 469765, Sire, Baron Clay (by Clay Johnson) Dam, Mayflower of Dianas by Royal King.

H. R. Taylor, River Falls, Wis. **RS.** River Falls. **T.** 34. **F.** Heavy milking dual-purpose cows. Records kept under supervision State Normal School. Several cows have qualified for

the Record of Merit. **S.** Kelmscott Viscount 3d, (imported) Sire, Cranford Wild Eyes (by Tamini and out of Wild Eyebright 9th, record 11,693 pounds) Dam, Primula 96th, record 9,092 pounds.

Marquart Bros., Milton Jct., Wis. **RS.** Milton Jct. **T.** 70. **F.** Good milking tribes. The grand champion bull, Queenston Duke, recently in service. Daily records kept. Several cows have qualified for the Record of Merit. **S.** Imp. Gipsy Warrior, Sire, Comely Warrior, Dam, Gipsy Lady 2d, record 8,917 pounds, by Campfire. Walgrove Duke, Sire, Royal Duke, Dam, Imp. Rosebud, record 8,700 pounds.

George Wenham and Sons, Ft. Atkinson, Wis. **RS.** Ft. Atkinson. **T.** 140. **F.** Old American tribes. **S.** Milton's Duke, Sire, Queenston Duke, Dam, Reta by Kinsella Lad.

Peter Traynor and Sons, Koshkonong, Wis. **RS.** Koshkonong. **T.** 20. **F.** Old American milking tribes. Daily records kept. Several cows have qualified for the Record of Merit. **S.** Kinsella Duke, Sire, Kinsella Lad, out of Kinsella 6th, record 11,259 pounds.

W. S. Martin, Prescott and Orleans St., East Boston, Mass. **RS.** Farm at Plainfield, Vt. **M.** George Danby. **T.** 50. **F.** Secured in 1918 from leading herds, many imported cows. Daily records kept. **S.** Imp. Cranford Regulator, Sire, Regulator (by Waterloo King and out of Red Rose 14th, record 8,701 pounds) Dam, Georgia Cran 2d, record 10,302 pounds, by Sir Barrington 5th. King Signet, Sire, Glenside Dairy King (by Imp. Royal Darlington and out of Mamie's Minnie, record 16,201 pounds) Dam, Imp. Bright Lily, record 10,240 pounds, by Ireby Signet.

Sentinel Pine Farm, Winslow Clark, Shoreham, Vt. **RS.** Larrabee's Point, Vt., and Fort Ticonderoga, N. Y. **T.** 60. **F.** From New York and Pennsylvania herds, a few imported. Daily records kept. Several cows in the Record of Merit. The grand champion bull, Duke of Edgewood, recently in service. **S.** Satisfaction, Sire, Duke of Edgewood, (by Cyrus Clay and out of Snowdrop Waterloo, record 11,801 pounds) Dam, Flora Clay. Imp. Priceless Lord Lee, Sire, Lord Lee 2d (by Darling-

ton Dairy King and out of Lady Lee 21st, record 13,195 pounds) Dam, Priceless by Conjuror.

Estate of Harrison Davis, Essex Junction, Vt. **RS.** Essex Jct. **T.** 20. **F.** Heavy milking New England families and Glenside breeding. Daily records have been kept. **S.** Blossom's Forester 441738, Sire, Forester (by Danger Signal and out of Fairy Duchess 19th by Conjuror) Dam, Blossom's Queen, record 35,678 pounds milk in three years.

W. Arthur Simpson, Lyndonville, Vt. **RS.** Lyndonville. **T.** 40. **F.** Heavy milking New England families, mainly Princess, a few imported. The Glenside bulls, Red Boy and Imported Robin by Dairy Ingram, recently in service. Daily records kept. A number of cows in the Record of Merit. **S.** Green Hill Waterloo, Sire, Waterloo Clay (by Cyrus Clay and Conishead Waterloo 11th, record 10,557 pounds) Dam, Glenside Flower Girl, record 8,078 pounds milk, 356 pounds fat, with first calf, by General Clay and out of Odette, record 14,000 pounds.

W. B. Ayer, Portland, Oregon. **RS.** Farm at Carleton. **M.** R. S. Fowler. **T.** 75. **F.** Top cows from leading herds of the country. **S.** Imperial's Lad, Sire, Imperial Clay (by Bell Boy 2d and out of Mamie Clay) Dam, Isabel, record 8,000 pounds average for ten years, by Bell Boy 2d. Foothill's Count, Sire, Coporal Clay (by Knight of the Glen and out of Kitty Clay 18th) Dam, a daughter of Waterloo Clay.

C. M. Kennedy and Son, Ulster, Penn. **RS.** Ulster. **T.** 35. **F.** Leading Bradford county strains, Kinsella's Pride by Knight of Glenrose and out of Kinsella 6th, recently in service. Records kept. **S.** Glenside Royal Stamp, Sire, Glenside Royal Style (by Bare Style and out of Imp. Royal Miss 4th, record 11,191 pounds) Dam, Comely Maid, record 5,410 pounds at two years, by High Field Saint.

Edith N. Shoup, The Gardens, Dayton, Ohio. **RS.** Dayton. **T.** 6. **F.** Herd recently established. **S.** Prime Wood, Sire, Woodbine, Dam, Primula.

The following are members of the Milking Shorthorn Club but data regarding their herds was not available for this publication at the time of going to press:

H. P. Hostetter	Mt. Carroll, Ill.
W. A. Robinson	Walker, Iowa
O. W. Simmons	Guthrie Ctr., Iowa
F. O. Greene	100-110 South 2d Street, Des Moines, Iowa
Rees Hawkins	Easton, Maryland
W. A. Collier	Pontiac, Mich.
M. P. Cook	Flint, Mich.
R. V. White	Boyne City, Mich.
Tenis Jensen	Albert Lea, Minn.
W. P. Harned	Vermont, Mo.
M. H. Schurman	Portsmouth, N. H.
E. T. Cansler	Charlotte, N. C.
Sherwood Farms	Far Hills, N. J.
A. H. Tryon	Port Chester, N. Y.
G. Howard Davison	Millbrook, N. Y.
R. E. Arthur	Springfield, Ohio
R. F. Carper	East Akron, Ohio
A. F. Clark and Sons	Byran, Ohio
C. B. McLain	Wauseon, Ohio
W. L. Porter	Atwater, Ohio
O. E. Straley	Paulding, Ohio
W. V. Yoder	Louisville, Ohio
White Mountain Creamery Co.	New Bremen, Ohio
Willow Branch Farm	Chillicothe, Ohio
George Ashbridge	Whitford, Penn.
F. G. Van Dyke	Ulster, Penn.
George Greer	Newcastle, Penn.
C. T. Crocker	Fitchburg, Mass.
W. J. McRoberts	Harvard, Ill.

List of Shorthorn Cows in the Record of Merit.

Reprint of Records from Volumes 1, 2 and 3, Milking Shorthorn Year Book.

Class A records are those made under official supervision, state college or university, department of Agriculture and are designated by two stars; Class B records are semi-official, made under supervision of cow testing association and are designated by one star; Class C records are accepted on affidavit of owner as to correctness and if daily records have been maintained.

H. W. AVERY, LEDYARD, N. Y.

NAME OF COW	Milk Record	Fat Record	Age and Class
Ruth 3d 24440	15,599		M

ALEXANDER AND KELLOGG, SUISAN, CAL.

Lady Starlight 172164	8,039.1	332.17	**4
Bellevue Daisy 117852	8,480.1	322.25	**M
Buttercup 140065	7,039.1	267.34	**3
Eva 140067	6,910.2	255.7	**3
Eva 140067	9,604.2	341.34	**4
Flower Girl 2d 167256	9,059.2	343.2	**3
Glenside Belle 153879	7,691.9	315.19	**4
Greenhill Caroline 220996	6,220.0	242.4	**2
Princess Clay 172166	7,609.9	267.01	**3
Imp. Countess of Heggie 3d 593303	9,710		M
Imp. Favorite 4th 518382	8,360		M
Imp. Gipsy's Maid 594424	7,287		3
Imp. Lady Beatrice 594424	8,330		M
Imp. Welfare 11th 518467	6,880		3

H. W. AYRES, JAMESTOWN, N. Y.

Cherry 163315	8,010.9	329.84	**3
Cherry 163315	8,554.5	360.84	**4

G. J. BAKER, ST. PAUL, MINN.

Roan Fannie 113057	5,634.6	215.7	2
Flossie 189692	5,749.1	231.2	3

E. W. BROCKETT, ATWATER, OHIO.

White Somerset 159745	6,849		2
Lady Jane 141728	7,450		4
Red Mist 2d 210375	5,796	257.57	2

NAME OF COW	Milk Record	Fat Record	Age and Class
Athelia 210374	6,499	288.7	2
Blossom 75618	9,312		M
Miss J. I. Beck	9,100	384.	M
J. C. CHARLSON, INDEPENDENCE, IOWA.			
Wild Eyes Duchess (Vol. 52 p. 540)	9,467		M
COOK & COOK, INDEPENDENCE, IOWA.			
Bessie J. 168301	7,010.8	277.6	**3
Bertha 149315	5,574	249.6	**2
Elspeth 149316	5,306.6	236.5	**2
Elspeth 149316	7,018.4	277.2	**3
Riverview Mary 332327	6,315	229.1	*3
CORNELL UNIVERSITY, ITHACA, N. Y.			
Lady Clay 2d 60095	10,015.6	396.74	**M
Lady Clay 3d 60096	11,928	494.13	**M
Lady Clay 5th 122246	7,260.5	308.87	**3
Lady Clay 5th 122246	7,441.6	296.7	**4
UNIVERSITY OF MISSOURI, COLUMBIA, MO.			
Campus Henrietta B. 149934	8,835.9	335.8	**3
Campus Henrietta D. 234287	8,715.2	336	**4
Lula (V. 62 p. 842)	12,341.4	514.8	**M
Panama Lady (V. 62 p. 824)	13,779.5	489.46	**M
Louena 115706	9,646.7	346.58	**3
Louena 115706	13,305.4	447.7	**M
IOWA STATE COLLEGE, AMES, IOWA.			
Reward of Norah's Duke (Vol. 44)	9,326.8	385	**M
College Moore (Vol. 40)	9,443	388.4	**M
FRANK BAILEY, HARTFORD, MICH.			
Nora 86225	8,472		M
D. T. BARNARD, SHELBURNE, MASS.			
Angel 190476	6,872	316.11	3
Zora 17th 190478	6,488.5		3
Lady of Hill Farm 15th 160806	7,086	317.8	3
Angel 190476	8,843		4

NAME OF COW	Milk Record	Fat Record	Age and Class
Lady of Hill Farm 15th 160806	8,957.5		M
Mabelle 7th 144646	8,221		M
R. K. BEAM, ANSONIA, OHIO.			
Mollica Queen 97823	8,370		M
BRUINGTON BROS., CAMERON, ILL.			
Gwendoline Rose 93240	8,734.6	353.6	M
Gwendoline 255866	5,790	227.7	2
FRANK BRACE, COLUMBIA CROSS ROADS, PA.			
Ruth B. (V. 48, p. 73)	10,709		M
Star V. (V. 63, p. 583)	8,074		M
Red Bess 100629	10,331		3
Red Bess 100629	10,668		M
Milkmaid 88217	8,847		3
Belle of Brookside 23350	10,083		M
Amalitta 88211	9,476.5		4
Dorothy 88212	8,077		2
Lady Belle 157469	5,415.5		2
Bessie B. 157466	5,412.5		2
Hester 157468	6,079		2
Hattie B. 157467	5,952.5		2
Village Queen 213652	6,557		2
Hester 157468	9,860		3
Red Bess 100629	14,086.5		M
Alpine Beauty 109988	9,014		M
BLACKMER & NELSON, ALBERT LEA, MINN.			
Blackwood Athena 3d 92565	9,006		2
Rose of Blackwood 3d 36493	13,258		M
H. L. COBB & SON, INDEPENDENCE, IOWA.			
Valentine Blackwood 46147	9,259.2		M
A. F. CLARK & SONS, BRYAN, OHIO.			
Susie Clay 15774	6,355.5		2
Maimi Lee 134231	9,002.7		M
CONNECTICUT AGRICULTURAL COLLEGE, STORRS, CONN.			
Fillpail Queen 501790	6,094.9	289.8	**2
Bridget's Rose 501782	7,225.3	321.5	**2
Blossom's Midget 501775	8,669.1	354.8	**3

JOHN CONZEMIUS, HASTINGS, MINN.

NAME OF COW	Milk Record	Fat Record	Age and Class
Welcome's Dora 157759	8,295.2		M
Rachel 97504	8,278.8		M
Welcome's Maggie 3d 97507	9,206.6		M
Welcome's Dora 157759	10,130.3		M

BEDMINISTER FARM, J. LAROCQUE, FAR HILLS, N. J.

Maplelane Nancy 64440	12,132.4	474.28	**M

CLEVELAND BROS., MANSFIELD, PA.

Lady Ando 155191	8,227.3	325.17	3
Livia Rose 154639	8,592.5		3
Hazel Rose 154638	9,813		M
Livia Rose 154639	10,011.7		M

KELLEHER & CARTER, MT. JACKSON, VA.

Lady Glenrose 138557	12,981		3

KANSAS AGRICULTURAL COLLEGE, MANHATTAN, KANS.

Pride's Bessie 206445	7,383.7	290.2	3

H. C. FOLK, LOUISVILLE, OHIO.

Daisy Yorkshire 183105	8,413.3		3
Roan Rose 199271	5,720.5		2

A. T. COLE, WHEATON, ILL.

Charming Lass (V. 54, p. 1225)	10,500		M
Primula 114th (V. 58, p. 659)	12,463		M
Charming Maid (V. 59, p. 882)	7,530		4
Babraham Cherry (V. 56, p. 424)	9,000		M
Blossom 23 (V. 57, p. 189)	11,240		M
Pattie Millicent (V. 57, p. 504)	9,226		M
Damory K'kl't'n 4th (V. 58, p. 920)	8,878		M
Proud Millicent (V. 56, p. 501)	8,037		M
Sprightly Millicent (V. 57, p. 504)	6,027		3

W. C. DAVIES, CHESTER, IOWA.

Zella Lavender 151438	8,381.5		M
Lucile Lavender 157658	10,064.8		M
Myra Belle 157660	8,552		4
Clarice Clay 213959	8,406.5		2
Cubanetta 213960	7,579.4		3

ANIMAL HUSBANDRY

NAME OF COW	Milk Record	Fat Record	Age and Class
Cuban Blossom 164902	7,441		2
Louella B. 179863	7,393		2
Iola Belle 213961	8,509.5		2
Cherry Blossom 164901	11,134.6		M
Gertie (V. 69, p. 801)	8,655.4		M
Labyrinth (V. 66, p. 657)	10,622.4		M
Cuba (V. 64, p. 825)	8,656		3
Christine Lavender 165384	11,028.8		M
DOUGHOREGAN MANOR FARM, ELLICOTT CITY, MD.			
Manor Butterfly 172489	6,045		2
Manor Daisy 172490	7,544		2
Adelaide 75836	8,021.1	296.094	M
Greenleaf 38th (V. 58, p. 671E)	8,278.8		M
Lady Glenville 108973	8,803	299.315	M
Lady Glenville 108793	9,622.3		M
Imp. Magic Maid 2d 518428	7,317.2		2
Manor Fancy 172491	7,384.7		2
Merry Maid 100626	10,698.2		M
Moss Rose 114116	9,041.9		M
Roan Daisy 100633	11,592.3		M
Imp. Village Queen 610485	6,194.4		3
S. R. HOULTON, ELK RIVER, MINN.			
Roan Fern 72719	7,631		4
Duchess of Maple Grove (V. 66, p. 861)	8,547		M
Duchess 2d 46083	8,316.6	316.47	M
Fern Clay 196760	6,936.4	268.99	3
Waterloo Maid 51254	8,215.5	334.51	M
Pearl of Silver Creek	10,291.3	469.7	*M
Lula's Niece	8,222.6	232.3	*4
Clay Phantom 2d 248661	6,092.1	253.08	2
Lulu Clay 248664	7,309.6	263.38	2
White Rose 248678	6,324.8	220.77	2
E. C. HOLLAND & SON, MILTON, IOWA.			
Starlight 4th 206656	7,488.1	264.16	2
Laura 24th 208324	7,648.4	263.66	2
Ruby 121738	9,824.2		M
Starlight 64311	8,712.6		M
Lily 3d 149163	7,629.2	296.99	4
June 3d 206667	5,479.5		2

NAME OF COW	Milk Record	Fat Record	Age and Class
Clover Bud 149017	8,236.6	334.31	M
Fancy Pearl 2d 101443	9,088.7	359.90	M
June 3d 206667	6,514.4	292.49	3
Laura 22d 89698	8,403	329.16	M
Laura 24th 208324	9,780.3	376.63	3
Lady B. 4th 149018	6,150.8		2
Lilly 3d 149163	5,506.2		2
Daisy 121735	5,562.3		3
Laura 22d 89698	8,155		M
Marietta 149021	9,504.4	380.49	M
Roan Bess 3d 182578	9,009.4		3
Lady E. 182577	6,098.4		2
Daisy 121735	9,375.4		M
Lily 5th 206654	6,263.5	242.17	2
Lily 6th 206698	6,207.1	214.39	2
Lottie 206699	6,122	223.74	2
Milkmaid 179761	7,794.7	291.60	4
Pansy 206700	6,704.1	289.66	2
Roan Bess 3d 182578	8,615.4	352.29	4
Ruby 2d 206701	6,228	235.23	2
A. W. JONES, BURGHILL, OHIO.			
Golden Fern 59227	10,287		M
TENIS JENSEN, ALBERT LEA, MINN.			
Rose 179134	6,020	253.9	2
Bessie 180559	5,979	227.7	2
Bessie 180559	7,465	288.9	*2
Annie 179129	8,286	320.8	*2
Maggie 189132	8,365	329	*4
Sallie 5th 127963	13,127	528.1	*M
G. C. HEALEY, MUSCATINE, IOWA.			
Waterloo Lily's Pet 114123	11,009.7	443.7	M
W. W. KNAPP, WATERVLIET, MICH.			
Floretta Clay 38458	10,630.2		M
Dolly Varden 106257	7,062.6		2
Charlotte B. (V. 68, p. 561)	15,415.1		M
Daisy Belle 49696	8,259.5		4
J. W. JOHNSON, BIG LAKE, MINN.			
Lucida 157659	8,665.4		2
Azalia 157654	9,035		4

NAME OF COW	Milk Record	Fat Record	Age and Class
WM. HUGHES & SON, WAUKESHA, WIS.			
Mayflower Belle 172646	6,075.9	318.3	*3
HUDSON & SON, MASON, OHIO.			
Bonnie Brook Beauty 99258	9,164.6	334.1	M
Jane Jeneld 135436	8,946.8	350.5	M
Rosebud 98654	8,200.6	304.7	M
INNES & MAY, GRANVILLE CENTER, PA.			
May Rose 100625	8,343.6		M
Lady Butterfly 2d 100620	6,356.5		2
Lula Clay 114114	6,994.6		2
Belle Clay 114110	8,752.9		M
Rosewood Clay 100634	8,115.4		M
Lady Glenville 108973	5,541.5		2
PETER TRAYNOR & SON, KOSHONONG, WIS.			
Cecil L. 198499	5,485	218	2
Mae B. 198500	8,011	328.3	2
Peg L. 198501	6,612	280.3	2
MORTENSEN & NELSON, ALBERT LEA, MINN.			
Adelaide Blackwood 5th 159899	9,361	385.9	**3
Buttercup 2d 179438	15,608	657.7	**M
Champion's Blossom 214217	6,604	266.5	**2
Champion Rose 119901	12,277	508.1	**4
Lucy Ann 2d 179443	7,461	356.8	**3
Stena's Blossom 144387	8,932	380.9	**M
Buttercup 2d 179436	9,826		M
Stena's Blossom 144387	8,677	346.3	M
RAY NORMINGTON, IONIA, MICH.			
Lady Blossom 207043	5,955.4		2
Victoria Clay 117589	10,073		4
Victoria Clay 117589	8,017.6	284	*2
Maplelane Blossom 131180	6,333.6	227.9	*2
C. M. KENNEDY, ULSTER, PA.			
Eleanor 12287	8,647	310.4	*M
W. ARTHUR SIMPSON, LYNDONVILLE, VT.			
Cambridge Clay 162021	6,125.8	265.2	*2
Georgia Clay 156045	6,584.2	240.99	*2
Pansy Clay 156046	5,871.2	248.8	*2

NAME OF COW	Milk Record	Fat Record	Age and Class
Fairholme Princess 165228	8,280		M
Snowflake (V. 64, p. 999)	8,603		M
Cambridge 7th (V. 43, p. 988)	8,262.5		M
Constance Clay 192777	6,429.4	261.21	*3
Cambridge Clay 162021	6,788.5		*3
Princess Rose 162024	6,445.7		*3
Cambridge Clay 162021	7,314.1	326.55	*4
Princess Rose 162024	8,322.4	358.96	*4
Thorndale Clay 162027	7,708	317	*3
Constance Clay 192777	5,477.2		*2
Fairholme Princess 16528	8,012.1	304.3	*M
Cambridge Clay 162021	7,630.3	333.65	*5
Constance Clay 192777	9,617.2	377.92	*4
Fanny 11th 144644	9,936	378.78	*M
Janette 150998	8,263.2	329.88	*3
Princess Rose 162024	8,127.3	348.72	*M
L. D. MAY, GRANVILLE CENTER, PA.			
Belle Clay 114110	9,317.9	335.09	**M
Comely Beauty 211021	12,021.1	564.67	**M
Comely Maid 237602	5,410.2	220.75	**2
Doris Clay 41118	17,241.5	653.57	**M
Ethel of Glenside 226730	8,670.3	322.01	**2
Fern of Conococheaque (V60-1060)	10,548.5	387.58	**M
Fillpail Lassie 114111	10,842.8	450.62	**M
Gem of Glenside 41121	10,400.5	385.09	**M
Lady Moccasin 21094	9,147.7	360.81	**M
May Rose 100625	9,523	328.39	**M
Meadow Violet 226731	9,058.8	285.99	**3
Odette V66-772	10,110.3	345.82	**M
Pride of Lyndon 18th 55859	9,209.6	335.33	**M
Rosemary 116370	8,295.3	349.99	**M
Snowdrop Waterloo 41141	8,762.6	276.74	**M
Welcome Lass 211046	14,734.6	562.89	**M
Mamie's Minnie 41134	14,441.9	537.18	**M
Welcome Lass 211046	10,758.5	393.08	**M
Bellwood Clay 19837	10,742.4	378.8	**M
Lady Fillpail (V. 55, p. 679)	8,728.9	334.76	**M
Bessie Buttercup (V. 65, p. 621)	9,638	336.64	**M
Nancy Lee 2d (V. 64, p. 744)	9,907	379.07	**M
Doris Clay 41118	16,425	618.26	**M
Magnolia Clay 3d 148558	9,334.3	352.83	**M

NAME OF COW	Milk Record	Fat Record	Age and Class
Christmas Rose 211020	8,106.5	306.29	**4
Comely Beauty 211021	10,398.8	435	**M
Kinsella 6th 41124	9,367.9	336.39	**M
Gem of Glenside 41121	11,064.8	375.61	**M
Comely Beauty	10,774.8	429.61	**M
Welcome Lass 211046	13,560.9	563.1	**M
Fillpail Lassie 114111	8,824.6	350.82	**M
Village Lady 129054	5,471	241.4	**2
Meadow Violet	7,158.5	257.28	**3
Fern's Model (V. 66, p. 1007)	9,040.2	367.44	**M
Fern of Conococheaque (V. 60, p. 1050)	8,319.3	289.03	**M
Glenside Valley Belle 215816	6,154.7	229.18	**2
FLINTSTONE FARM, DALTON, MASS.			
Glenside Cora 172936	5,554.1		2
Glenside Katharine 213162	6,637.2		2
Glenside Katharine 213162	8,097.1		3
Glenside Lassie 213164	8,331.7		4
Glenside Minnie 213167	8,931.2		2
Maid of Glenside 149613	7,358		3
Maid of Glenside 149613	6,228.7		2
Maid of Waterloo 213168	8,709.7		2
J. K. INNES, GLENSIDE FARM, GRANVILLE CENTER, PA.			
Lady Fillpail (V. 55, p. 679)	10,448.8		M
Eleanor Lee (V. 40, p. 637)	9,082.6		M
Kitty Clover (V. 40, p. 638)	8,332.5		M
Laura (V 39, p. 508)	10,011.9		M
Henrietta Clay (V. 40, p. 637)	9,167.1		M
Belle 2d (V. 31, p. 798)	8,381.8		M
Kitty Clay 5th (V. 37, p. 872)	8,895.8		M
Nancy Lee (V. 38, p. 482)	8,575		M
Mayflower (V. 48, p. 482)	9,648.3		M
Lizzie Clay (V. 43, p. 1079)	10,322.4		M
Lady Fairfield 26th (V. 40, p. 810)	9,764.9		M
Dairy Maid (V. 64, p. 744)	7,597.7		2
Christmas Buttercup (V. 66, p. 782)	5,880.6		2
Lady Buttercup (V. 62, p. 780)	5,807		2
Kinsella 2d (V. 46, p. 436)	8,835		M
Lady Lee (V. 48, p. 342)	8,793.2		M

NAME OF COW	Milk Record	Fat Record	Age and Class
Lady Clare 4th (V. 48, p. 342)	8,882.3		M
Mamie Clay 2d (V. 48, p. 342)	13,232.1		4
Kinsella 3d (V. 55, p. 678)	8,578.8		M
Lady Clare 3d (V. 46, p. 436)	10,103.3		M
Luvia Clay 3d (V. 55, p. 679)	6,674		3
Kitty Clay 16th (V. 55, p. 679)	8,876.8		M
Roan Duchess (V. 61, p. 842)	8,552.7		2
Luvia Clay (V. 39, p. 508)	8,685.6		2
Dorothy (V. 46, p. 436)	8,336.7		4
Kitty Clover 3d (V. 46, p. 436)	9,526.8		M
Ruth (V. 46, p. 437)	8,434.3		M
Rosebud (V. 46, p. 436)	8,241.8		4
Red Bird (V. 43, p. 762)	11,279.3		M
Kitty Sweet (V. 43, p. 761)	8,286.4		M
Luvia Clay 2d (V. 43, p. 761)	9,350.5		4
Kitty Clay 15th (V. 40, p. 637)	8,609.9		M
Mamie Clay 2d (V. 48, p. 342)	11,171.8		M
Henrietta Clay 2d (V. 66, p. 782)	10,186		4
Lady Clara 13th (V. 43, p. 1079)	10,811.1		M
Lilly Clay 41129	5,774.6		2
Sunshine 41142	6,352.4		2
Belle of Glenside (V. 43, p. 651)	9,186.3		M
Eleanor Lee 2d (V. 41, p. 551)	9,869.3		M
Jennie Lee (V. 41, p. 551)	10,484.9		M
Paleface (V. 46, p. 818)	10,719.1		M
Conishead Waterloo 11th (V. 48, p. 341)	10,557.9		M
Clay Duchess (V. 62, p. 780)	6,468.5		2
Mamie Clay 2d (V. 48, p. 342)	10,380.9		2
Mamie Clay 2d (V. 48, p. 342)	10,314.9		3

THE OTIS HERD, C. A. OTIS, WILLOUGHBY, OHIO.

Daisy Duchess 154589	8,507.6	337.78	**2
Fillpail Baroness 223846	9,252.1	430.33	**M
Maple Ridge Mabel 234333	5,257.5		**2
Walby Lady 2d 223852	8,135.3	337.88	**4
Waterloo Maid 30th 594794	6,502.8	258.76	**2
Fillpail Violet 518384	7,325		2

NAME OF COW	Milk Record	Fat Record	Age and Class
Dekalb's Oxford 4th 530468	6,469.8		2
DeKalb's Duchess 3d 530465	6,179.5		2
Mapleridge Mabel 234333	5,319.5		2
Bessboro Orphan 2d 592295	10,631.7	415.81	**2
British Rose 223841	10,000		M
Daisy Duchess 154589	6,387.8		3
Hopeful (V. 56, p. 976)	7,638		4
Belle Clare 2d 127912	7,411.7		2
Kitty Clare 29325	9,395.1		M
Belle Clare (V. 66, p. 782)	15,215		M
Lily Clare 14930	8,160		M
Viola (Twin) 41144	8,702.9		M
F. A. ZEISENHEIM, GIRARD, PA.			
Miss Renick 12th 175863	6,461.9		2
Lady Sale 14th 175861	7,054.5		3
Lassie 3d 202784	7,571.9		2
G. T. FULLER, BATTLE CREEK, MICH.			
Lady Rose 236782	5,560		2
Georgiana Rose 169427	5,715		2
Moorland Lady 220916	5,869		2
Maid of Moorland 98611	12,034		M
H. C. HAINES, WALKER, IOWA.			
Beauty Blossom 117588	6,113.5		2
Rosabel 109646	6,711		2
G. L. HICKS, ALANSON, MICH.			
Nora D. 102384	9,327		M
Nora Bapton 144219	5,949		2
Lady Mina 168786	6,302		2
WALTER LITTLE ESTATE, JANESVILLE, WIS.			
Janesville Rose 70th	6,606.5		2
Janesville Rose 72d 147865	6,390.6		2
Janesville Rose 49th 74200	11,191.7		M
Janesville Rose 55th 123685	8,459.7		4
Janesville Rose 64th 140372	7,168.6		3
Janesville Rose 69th 203939	8,142.6		2
Ida Fremont 55th 17546	8,822	340.7	*M
Janesville Rose 44th 58487	10,021	375.1	*M
Janesville Rose 55th 123685	5,868.7	312.9	*M

NAME OF COW	Milk Record	Fat Record	Age and Class
Janesville Rose 65th 140373	9,071.5	307.8	*M
Janesville Rose 70th	8,204	313.6	*4
Lady Mayflower 22d 84206	9,843	369.6	*M
Lily Clay 4th 108689	10,278.1	468	*M
Lily Clay 6th 140379	5,612.8		*2
Roan Maid 187329	8,394.2	352.5	*4
Ida Fremont 71st 147862	5,893		3
Ida Fremont 74th 237478	5,635.4	219.7	2
Janesville Rose 5th (V. 58, p. 854)	8,020.6		M
Janesville Rose 69th 203939	10,516.5	3 8	M
Janesville Rose 72d 147865	8,788.7		4
Janesville Rose 73d 147863	7,156.5	314.8	4
Janesville Rose 78th 237482	6,038.3	247.2	2
Young Duchess 17554	9,671.7		M
MAY & OTIS, GRANVILLE CTR., PA., AND WILLOUGHBY, OHIO.			
Rose of Glenside (V. 57, p. 745)	18,075.2	624.76	**M
Hallowe'en Belle 58360	8,923.1		3
Fillpail Lassie 114111	10,270.2		3
Roxie 2d 118411	8,023.7		4
Misty Morn 41138	9,141.9		3
Bessie Butterfly 77728	5,537.9		2
Kinsella 6th 41124	10,941.3		3
Mamie's Minnie 41134	16,201.7		M
Mamie's Minnie 41134	14,838.8		M
Lady Granville 41127	10,013.1		M
Snowdrop Waterloo 41141	11,801.6		M
Lady Brace 41731	8,300.2		M
Gem of Glenside 41121	11,169.9		M
Kinsella's Lady	8,838.3		4
Doris Clay 41118	10,617		3
Maywood Clay 41135	5,920.7		2
Village Maid 41143	5,562.3		2
Mamie's Belle 41132	8,378.9		M
Mamie's May 41133	10,599.2		M
Rosalind Clay 41140	5,722.3		2
Kinsella 6th 41124	11,065.2		M
Kinsella 6th 41124	11,259.8		M
Violet 41145	10,465.2		4
Ruey Clay 44121	8,828.6		M
Lottie Clay 28144	10,373		3
Katie Clay 28140	10,736.7		4

NAME OF COW	Milk Record	Fat Record	Age and Class
Loretta Clay 28143	8,232.7		3
Kitty Starlight 28141	8,623.9		4
Susan (V. 66, p. 554)	10,061.4		M
Jewel (V. 65, p. 957)	10,887.8		M
Fairholme Red Rose 16332	10,225		M
Red Rose 2d 100630	7,174.3		2
Red Rose of Richbarons (V. 67, p. 784)	7,462.5		2
Maplelane Virginia 31845	10,102.2		M
Atrosia (V. 64, p. 553)	10,340		M
Glenside Pearl 108766	5,675.6		2
Mamie of Glenside 100624	8,360.2		3
Glen Lady 114112	5,253.9		2
Clara Clay 112117	6,756.2		2
Elora 35808	12,480.7		M
Village Queen (V. 64, p. 745)	9,514.3		M
May Buttercup (V. 66, p. 782)	9,954.5		M
Rose Buttercup (V. 66, p. 7820)	9,158		M
Luvia Buttercup 41131	9,961.8		M
Bessie Buttercup (V. 65, p. 621)	11,539.7		M
New Year's Clay (V. 48, p. 342)	8,950.3		M
Margaret Clay (V. 40, p. 637)	10,043.2		M
Magnolia (V. 57, p. 745)	10,333.1		M
Maid of the Mist (V. 64, p. 744)	10,031.3		M
Nancy Lee 2d (V. 64, p. 744)	10,039.7		M
Lady Clare 5th (V. 48, p. 342)	9,996.9		M
Bud 23315	10,694.4		M
Adelaide 86184	7,582.8		3
Odette (V. 66, p. 772)	10,140.8		M
Marietta Clay 114115	6,602.4		2
Lou of Glenside 114113	8,084.7		4
Belle of the Valley (V. 54, p. 728)	8,338.7		M
Magnolia Clay 3d 138558	6,233.4		2
May Granville 139795	6,499.5		2
Susie Clay 114117	6,416		2
Aggie 32955	8,794.8		M
Fern's Model (V. 66, p. 1007)	8,583.2		M
Fern of Cococheague (V. 60, p. 1050)	11,818.6		4

NAME OF COW	Milk Record	Fat Record	Age and Class
Kinsella Buttercup (V. 68, p. 603)	8,198.3		M
Bellwood Clay 19837	9,258.8		M
Lucy B. (V. 63, p. 582)	9,107.7		M
Jessie Clay 14935	8,863.5		M
Roan Daisy 100633	9,598.9		3
F. McMARTIN & SONS, CLAREMONT, MINN.			
Water Lily 100636	9,567		M
Cornelia 3d 205546	6,422.2		2
Millie 42428	8,163	284.81	M
Jean 182398	6,146.6		2
Loida 108172	8,690.7		M
Lulu 10035	10,295.5		M
Claribel 208506	6,486		2
Beulah 238713	5,583.9		2
Narcissus Maid 209749	6,786		3
Meadowrue 151847	10,065.1		4
Beatrice 104623	8,955.2	342.6	*M
Janet 4th	5,848.4	232.3	*2
Lassie 3d (V. 68, p. 824)	8,722.7	324.9	*M
Lucy 11th 115231	6,509	258.57	*3
Harriet 2d 16152	8,691.1	368.82	*M
Meadowrue 151847	6,638.1	244.50	*2
Lida 43817	8,139.8	327.68	*M
Olga 108644	6,495.5	233.85	*2
Harriet 3d 108171	6,322.1	258.7	*3
Brookside Lassie 2d (V. 66, p. 860)	8,594.8	354.72	*M
Lucile 108643	5,687.7	231.44	*3
Lula 10035	8,919	354.13	*M
Alice Maud (V. 68, p. 824)	8,564.2	338.35	*M
Belle 3d 74679	8,698.3	312.11	*M
Marianna 3d 175190	6,189	243.41	*2
W. J. ROBERTS, HARVARD, ILL.			
Janesville Rose 63d 124197	8,340.7		M
Lady Mayflower 28th 124198	10,981		M
Roan Lady 222376	5,865.6		2
H. S. NEILSON, DARIEN, CONN.			
Belle of Althea 185688	7,840.10	329.51	**3
Minnie 3d 123234	8,819	425.93	**M

NAME OF COW	Milk Record	Fat Record	Age and Class
Minnie of Althea 231820	6,429	284.25	**2
Myrtle 2d 14775	10,840.13	432.62	**M
Minnie 3d 123234	9,369.8		4
Belle of Althea 185688	5,806.5		2
M. E. MILLER, GREENVILLE, MICH.			
Charlotte B. 2d 131108	7,528.5		2
C. B. McLAIN, WAUSEON, OHIO.			
Maid of Mapleview 208006	8,791.1		2
Dairymaid 60902	12,423		M
Miss Gynne 60903	8,072		M
J. H. McCULLOM, CORTLAND, OHIO.			
Roan Violet 112952	8,168.7	283.40	*4
A. E. PALMER, EUCLID, MINN.			
Janesville Rose 64th 140372	8,971.9	427.04	M
Jenney Lee 195965	6,681.6	310.21	2
Glenside Lovely 173241	5,864.4	229.48	2
W. C. PARKER, OSKOLOOSA, KANSAS.			
Olive Washington (V. 61, p. 587)	9,364		M
Imp. Walby Beauty 198509	9,920		3
W. S. PRATT, BRATTLEBORO, VT.			
Glenside Flower Girl 157575	8,078	355.48	*2
Glenside Flower Girl 157575	8,297	331.88	*3
Hazel 59343	10,447	439.8	*M
Lady Grey 143798	8,543	375.9	*4
Marietta Clay 114115	8,797	316.69	*M
Mountain Girl 172398	7,465	298.6	*3
HAYDEN PETERSEN, ATLANTIC, PA.			
Cora Bell (V. 69, p. 1005)	8,108		M
Maplelane Nan Oxford 157423	8,136		M
Roan Beauty 114345	8,900		4
Rosedale Beauty 192735	5,742		2
RIDGE FARMS, ESPY, PA.			
Carlotta 59340	11,639.4		M
Espy Constance 217603	7,447.6		2
Espy Netta 217605	5,753		2

NAME OF COW	Milk Record	Fat Record	Age and Class
ROBERT SALTONSTALL, READVILLE, MASS.			
Glen Lily 152710	6,696		3
Elora Clay 152709	8,072		3
Maplelane Pauline 159398	6,398		2
Glenside Waterloo 160318	7,062		2
Bessie Buttergirl 2d 160635	6,132		2
Ruby 124321	7,366		2
Fanny Fillpail 160636	6,518	241.16	3
Bessie Buttergirl 2d 160635	8,863	300.2	3
Glenside Waterloo 160318	7,325	263.6	3
Maplelane Pauline 159398	8,376	286.45	3
Ruby 124321	8,769	306.08	4
Josephine 14th 82106	7,557	308.32	M
Dairy Belle 241335	6,962	257.55	2
Glenside Waterloo 160318	8,602	335	4
Lucky Girl 244348	5,334	213.36	2
FRED A. SAXTON, GRANVILLE CENTER, PA.			
Isabel (V. 65, p. 970)	9,542		M
Dorothy Belle 58359	10,159.1		M
Beauty Belle 128083	6,224.3		2
Dorothy Belle 58359	13,167.2	525.63	*M
Lassie Belle 252322	7,506	308.87	*2
SENTINEL PINE FARM, SHOREHAM, VT.			
Sunrise 118904	6,152.13		2
Frederica 18963	8,575		3
Aurora 3d 215645	8,296		4
Gomelda 180152	5,777		2
Iris 3d 52230	8,564.75		M
Melinda 52234	8,693.50		M
Roan Belle 181013	5,420.50		2
Sentinel Pine Rose 468603	8,095		2
W. J. STURGEON, KITTANNING, PA.			
June Duchess 37766	10,298.4		M
D. E. SULLIVAN, INDEPENDENCE, IOWA.			
Red Rose Gynne 3552	8,080.5	327.26	**M
Janette 204081	5,892	249.09	*2
R. F. SKIFF, IOWA FALLS, IOWA.			
Alpha 31751	10,706		M

M. E. STONER, ALBERT LEA, MINN.

NAME OF COW	Milk Record	Fat Record	Age and Class
Rose of Blackwood 3d 36493	17,564	569.7	**M
Violet Knight 159907	7,593	302.6	**2
Blackwood Girl 4th 135140	8,678	381.1	**2
Dolly Blackwood 8th 92567	10,789	458.5	**4
Adelaide of Chippewa Valley (V. 45-1169)	8,104	288.1	*M
Blackwood Girl 15th 187883	6,368	284.6	*2
Ida 187885	5,064	200.9	*2
Virginia Blackwood 46150	9,006	378.4	*M

H. E. TENER, WASHINGTONVILLE, N. Y.

Roan Starlight 7th 108100	9,273.2		M
Daisy Belle 12th (V. 57, p. 493)	9,170		M
Rosa 4th (V. 59, p. 50)	8,270		M
Rosebud Grey (V. 58, p. 663)	9,280		M
Rosamond (V. 57, p. 1136)	8,270		M
Morcambe Pearl 497127	10,209.6		M
Beauty 2d 179597	7,039		2
Hutton Keepsake 3d (V. 59, p. 938)	9,640.4		M
Bessie of the Glen 500396	6,324.6	259.4	2
Gem 5th 632858	9,410		M
Gipsy Lady 2d 594423	8,700		M
Honesty 2d 542309	8,238.7	310.2	M
Lady Mary 558392	7,261.5	286	2
Mermaid 4th 593011	10,500		M
Roan Starlight 7th 108100	11,461.5	461.2	M
Strawberry Queen 497134	6,500.8	325	3

GEORGE E. TAYLOR, JR., SHELBURNE, MASS.

Rhoda's Queen 176143	8,809.9	356.4	*2
Margarette 6th 165142	6,640	260.4	*2
Elsie 2d 109881	8,064.8	330.2	*M
Elsie 2d 109881	6,408.75	261.03	*2
Beauty's Last 106697	8,770.75	330.86	*3
Beauty 17th 124289	7,057	282	*4
Rhoda 4th 124292	7,502	302	*3
Rhoda 5th 140070	6,409	217.4	*3
Susie 4th	7,287	297.2	*3

J. E. & C. B. WADE, ORANGEVILLE, OHIO.

NAME OF COW	Milk Record	Fat Record	Age and Class
Juanita 176688	8,660		2
Rose Fairfield 2d 87341	10,045		3
Bessie 2d (V. 68, p. 680)	10,115		M
Queenston Ruby 59918	8,685		4
Laura Clay 100623	8,091		M
Miss Renick 115633	8,081		4
Ivory Duchess 179101	6,895		2
Roan Daisy 124320	7,628		2
White Duchess 124322	7,228		2
Roan Starlight 7th 108100	9,028		M
Edgewood Bonnie 59916	9,560		M
Milk Lady 71320	8,006		M
Bessie Challenger 82364	8,331		M
Edgewood Winnie 82103	8,693		M
Brookie of Edgewood 65400	9,067		M
Young Daisy 74151	8,089		M
Lou Waterloo 41130	10,072		M
Lady Sale of Edgewood 42107	10,620		3
Roan Queen 176690	5,619		2
Glenside Honora	7,651		3
Roan Matchless 140620	7,221.2		3
Village Maid 41143	9,938		M
Duchess 83746	8,663		M
Brooksie of Edgewood 68400	11,256		M
Edgewood Winnie 82103	12,313		M
Sunshine Clay 2d 173243	6,108		2
Imp. Royal Miss 211040	11,191		M
Lady Waterloo 220107	7,087		2
June Rose of Edgewood 500426	7,090		2

F. E. WARSAW

Wild Duchess 76202	10,087		M

WEST VIRGINIA AGRICULTURAL COLLEGE, MORGANTOWN, W. VA.

Lady Lulu 138130	9,014.2	357.87	**M

R. R. WHEATON, THORNDALE, ONT.

Graybird 574221	7,137.64		**M
Purple Hill Ladd 574227	8,470		**4
Queen Daisy 574230	10,528.5		**M
Rosebud Queen 574232	11,845		**M

ANIMAL HUSBANDRY

NAME OF COW	Milk Record	Fat Record	Age and Class
Rosebud Queen 2d 574233	9,606.6		**4
Rosebud Queen 3d 574234	5,440.9		**2
W. C. WOOD, PENDLETON, IND.			
Hero Maid 4th 197562	7,010.8	276.63	3
Stella 87782	8,537.7	352.8301	M
R. G. WOOD, CONSHOHOCKEN, PA.			
Bellevue Princess 200819	7,120.5		3
Lady Bellevue 3d 200820	6,225.9		3
Queen Waterloo 161660	6,487.1		2
Woodmount Duchess 195726	6,341.9		2
Lady Acme (V. 69, p. 928)	8,587.9		M
Lady Ruby (V. 69, p. 928)	8,000.2		M
Dora Clay 117856	7,858.2		3
Bellevue Maid 117853	6,798.4		3
Lady Bellevue 2d 117858	8,379.1		M
Sylvania 17468	8,196.3		M
Bellevue Kitty Clay 161648	5,972.5		3
Clay Rose 2d 161653	6,814.8		3
Clay Rose 87841	8,196.7		M
Bellevue Pansy 195716	5,241.7		2
Lady Acme (V. 69, p. 928)	9,196.6		M
Hazel 4th 150570	6,859		2
Dolly of Bellevue 161655	6,699.3		2
Sylvania 17468	9,323.1		M
Bellevue Martha 190688	9,979.7		M
Bellevue Pearl 195717	5,357.6		2
Clay Rose 2d 161653	8,408.7		2
Daisy Barrington 467018	5,402.3		3
Dolly of Bellevue 161655	8,366.2		2
Bellevue Pearl 195717	5,357.6		2
Dora Clay 117856	9,123.5		M
Primrose 161659	5,652.5		3
Rose Waterloo 195723	7,624.6		3
Sylvania 17468	8,412.4		M
Woodmont Duchess 195726	8,724.5		M
Clay Rose 2d 161653	8,408		4
Daisy Barrington 467018	5,402.3		2
Dolly of Bellevue 161655	8,366		3
C. ZIESENHEIM & SON, GIRARD, PA.			
Lassie 4th 202785	5,264.05		2

ANIMAL HUSBANDRY

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